



## **INVITATION TO BID**

**ITB # 15-012**

**Lost Corners Preserve Parking Improvements**

**Pre-Bid Conference:  
May 5, 2015; 10:00 a.m.**

City of Sandy Springs  
City Hall – Flying Pig Conference Room  
7840 Roswell Road Suite 500  
Sandy Springs, Georgia 30350

**Deadline for questions:  
May 8, 2015; 5:00 p.m.,**  
Questions received after this date and time may not be answered.

**Questions must be directed in writing to:**  
City of Sandy Springs, *Purchasing Manager, Jeff Allen,*  
*via e-mail to:*  
[jallen@sandyspringsga.gov](mailto:jallen@sandyspringsga.gov)

**Bids Due:  
May 21, 2015; 2:00 p.m.**

City of Sandy Springs  
Purchasing Office  
7840 Roswell Road Suite 500  
Sandy Springs, Georgia 30350

Bids received after this date and time or at any other location will not be accepted

## DEFINITIONS

SSPWD: Sandy Springs Public Works Department

GDOT: Georgia Department of Transportation

ENGINEER: The Sandy Springs Director of Public Works or a duly authorized representative.

ADA: Americans with Disabilities Act

EA: Each

GAL: Gallon

LF: Lineal Feet

LS: Lump Sum

SY: Square Yard

TN: Ton

MUTCD: *Manual on Uniform Traffic Control Devices*

OSHA: Occupational Safety and Health Administration

FHWA: Federal Highway Administration

AASHTO: American Association of State Highway and Transportation Officials

CONTRACT DOCUMENTS: Contract Agreement, General Conditions,  
Special Provisions, Technical Specifications,  
Drawings and Plans, Bidding Documents

# CITY OF SANDY SPRINGS

## Invitation to Bid # 15-012 Lost Corner Preserve Parking Improvements

The City of Sandy Springs is accepting sealed bids from highly qualified firms, for **ITB # 15-012, Lost Corner Preserve Parking Improvements** for *the Recreation and Parks Department*. Work will be done in accordance with all plans, drawings, specifications and contract documents. Plans for this project are available at LDI, <http://www.ldireproprinting.com/locations.htm>, LDI Norcross, 3030 A Business Park Dr., Norcross, GA 30071, 770-263-1010 (P), 770-417-1147 (F).

All bidders must comply with all general and special requirements of the bid information and instructions enclosed herein. A Pre-Bid Conference will be held on **May 5, 2015 10:00 a.m.**, at the City of Sandy Springs City Hall Flying Pig Conference Room. **Deadline for questions from prospective contractors is 5:00 p.m., May 8, 2015.** Questions received after this date and time may not be answered.

Sealed bids will be received no later than **May 21, 2:00 p.m.**, in the City of Sandy Springs Purchasing Office, 7840 Roswell Road, Bldg. 500, Sandy Springs, Georgia 30350 at which time bids will be opened and publicly read aloud. Bids received after the above time or in any other location other than the Purchasing Office **will not** be accepted.

Bids shall be presented in a sealed opaque envelope with the bid number and name **Invitation to Bid # 15-012 Lost Corner Preserve Parking Improvements** clearly marked on the outside of the envelope. The name of the company or firm submitting a bid should also be clearly marked on the outside of the envelope. One (1) original and three (3) copies should be submitted. Bidders should also include either a thumb-drive or CD containing a scanned copy of the bid in PDF format. Bids will not be accepted verbally or by fax or email. Bid packages are available on the City of Sandy Springs website, purchasing page <http://www.sandyspringsga.org/business/doing-business-with-the-city/bidding-opportunities> and also may be downloaded from the DOAS website ([www.doas.georgia.gov](http://www.doas.georgia.gov)). All questions should be forwarded in writing to Jeff Allen at [jallen@sandyspringsga.gov](mailto:jallen@sandyspringsga.gov). Please refer to **Invitation to Bid # 15-012 Lost Corner Preserve Parking Improvements**, when requesting information.

The City of Sandy Springs reserves the right to reject any or all bids and to waive technicalities and informalities, and to make award in the best interest of the City of Sandy Springs, or to make no award.

The selected contractor must be able to start work within ten (10) calendar days after the "Notice to Proceed" is issued. The time of completion for the project is **three hundred and sixty (360)** calendar days from the date of the "Notice to Proceed." Section 108.08 of the State of Georgia Department of Transportation *Standard Specifications Construction of Transportation Systems* (current edition) shall be applied.

# **CITY OF SANDY SPRINGS**

## **Invitation to Bid # 15-012 Lost Corner Preserve Parking Improvements**

### **SCHEDULE OF EVENTS**

#### **May 5, 2015; 10:00 a.m. – Pre Bid Conference**

City of Sandy Springs City Hall  
Flying Pig Conference Room  
7840 Roswell Rd., Building 500  
Sandy Springs, GA 30350

#### **May 8, 2015; 5:00 p.m. – Deadline for Questions**

Submit all questions in writing (email only) to Jeff Allen  
[jallen@sandyspringsga.gov](mailto:jallen@sandyspringsga.gov)

#### **May 21, 2015, 2:00 p.m. – Bids Due**

City of Sandy Springs City Hall  
Purchasing Office  
7840 Roswell Rd., Building 500  
Sandy Springs, GA 30350

**BID FORM**  
**(Bidder to sign and return)**

**TO: PURCHASING MANAGER  
CITY OF SANDY SPRINGS  
SANDY SPRINGS, GEORGIA 30350**

**Ladies and Gentlemen:**

In compliance with your Invitation To Bid, the undersigned, hereinafter termed the Bidder, proposes to enter into a Contract with the City of Sandy Springs, Georgia, to provide the necessary machinery, tools, apparatus, other means of construction, and all materials and labor specified in the Contract Documents or as necessary to complete the Work in the manner therein specified within the time specified, as therein set forth, for:

***ITB # 15-012 – Lost Corner Preserve Parking Improvements***

The Bidder has carefully examined and fully understands the Contract, Specifications, and other documents hereto attached, has made a personal examination of the Site of the proposed Work, has satisfied himself as to the actual conditions and requirements of the Work, and hereby proposes and agrees that if his bid is accepted, he will contract with the City of Sandy Springs in full conformance with the Contract Documents.

Unless otherwise directed, all work performed shall be in accordance with the Georgia Department of Transportation *Standard Specifications, Construction of Transportation Systems* (current edition). All materials used in the process of completion of the work included in the Contract will be furnished from Georgia Department of Transportation certified suppliers only.

It is the intent of this Bid to include all items of construction and all Work called for in the Specifications, or otherwise a part of the Contract Documents.

In accordance with the foregoing, the undersigned proposes to furnish and construct the items listed in the attached Bid schedule for the unit prices stated.

The Bidder agrees that the cost of any work performed, materials furnished, services provided or expenses incurred, which are not specifically delineated in the Contract Documents but which are incidental to the scope, intent, and completion of the Contract, shall be deemed to have been included in the prices bid for the various items scheduled.

The Bidder further proposes and agrees hereby to promptly commence the Work with adequate forces and equipment within ten (10) calendar days from receipt of Notice to Proceed and to complete all Work within one *hundred and twenty (120)* calendar days from the initial Notice to Proceed.

The Bidder will be required to sign a “Notice of Intent” (NOI) as the “operator” prior to beginning construction. The Bidder shall be responsible for installing and maintaining the “Best Management Practices” (BMP’s) throughout the term of the project. Upon completion and prior to final payment the Bidder will be required to sign a “Notice of Termination (NOT) upon final approval by COSS.

Attached hereto is an executed Bid Bond (bond only: certified checks or other forms are not acceptable)) .  
\_\_\_\_\_ in the amount of \_\_\_\_\_ Dollars (\$ Five Percent of Amount Bid).

If this bid shall be accepted by the City of Sandy Springs and the undersigned shall fail to execute a satisfactory contract in the form of said proposed Contract, and give satisfactory Performance and Payment Bonds, or furnish satisfactory proof of carriage of the insurance required within ten days from the date of Notice of Award of the Contract, then the City of Sandy Springs may, at its option, determine that the undersigned abandoned the Contract and there upon this bid shall be null and void, and the sum stipulated in the attached Bid Bond or certified check shall be forfeited to the City of Sandy Springs as liquidated damages.  
Bidder acknowledges receipt of the following addenda:

Addendum No.	Date Received
_____	_____
_____	_____
_____	_____
_____	_____

Bidder further declares that the full name and resident address of Bidder’s Principal is as follows:  
Signed, sealed, and dated this \_\_\_\_\_ day of \_\_\_\_\_

Bidder \_\_\_\_\_  
Company Name

Seal

Bidder Mailing Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
:  
:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
By: \_\_\_\_\_  
Title: \_\_\_\_\_

## **BIDDING INSTRUCTIONS**

**The following items should be returned with the bid documents.**

- City Bid Schedule and City Bid Form
- Bid Bond\*
- Applicable Compliance Specifications Sheets
- Applicable Addenda Acknowledgement
- Affidavit Verifying Status for City Public Benefit Application\*
- Contractor Affidavit under O.C.G.A. § 13-10-91(b)(1)\*
- Qualifications Signature and Certification
- Corporate Certificate\*
- List of Subcontractors\*
- CD containing scanned copy of bid in PDF format

**\*These pages can be found in the Appendices' section of the Sample Contract.**

## **INSURANCE REQUIREMENTS**

Within 10 days of Notice of Award, and at all times that this Contract is in force, the Contractor shall obtain, maintain and furnish the City Certificates of Insurance from licensed companies doing business in the State of Georgia with an A.M. Best Rating A-10 or higher and acceptable to the City covering:

1. Workers' Compensation & Employer's Liability Insurance. Workers' Compensation Insurance in compliance with the applicable Workers' Compensation Act(s) of the state(s) wherein the work is to be performed or where jurisdiction could apply in amounts required by statutes. Employer's Liability Insurance, with limits of liability of not less than \$1,000,000 per accident for bodily injury or disease.
2. Commercial General Liability Insurance, including contractual liability insurance, product and completed operations, personal and advertising injury, and any other type of liability for which this Contract applies with limits of liability of not less than \$1,000,000 each occurrence / \$2,000,000 policy aggregate for personal injury, bodily injury, and property damage. Commercial General Liability Insurance shall be written on an "occurrence" form.
3. Automobile Liability Insurance with limits of liability of not less than \$1,000,000 per accident for bodily injury and property damage if automobiles are to be used in the delivery of or in the completion of services and work or driven onto the City's property. Insurance shall include all owned, non-owned and hired vehicle liability.
4. Umbrella Insurance with limits of liability excess of Employer's Liability Insurance, Commercial General Liability Insurance and Automobile Liability Insurance in the amount of not less than \$3,000,000.
5. Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) with limits not less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.
6. Professional (Errors and Omissions) Insurance- For Professional Services and for all Design/Build Projects with limits of liability of not less than \$3,000,000 per occurrence or claim / \$3,000,000 policy aggregate. Such policy shall also include coverage for losses arising from the breach of information security or cyber liability (including Errors & Omissions, Security and Privacy Liability and Media Liability), whether combined with the Professional Liability policy or placed as a separate policy, but carrying the same limits of liability. Such coverage shall insure damage, injury and loss caused by error, omission or negligent acts, including all prior acts without limitation, related to the professional services to be provided under this Contract. The policy shall be amended to include independent contractors providing professional services on behalf of or at the direction of the Contractor. The definition of Contractual Liability shall be amended to state that liability under a contract of professional services is covered. Further, coverage shall be afforded for fraudulent acts, misappropriation of trade secrets, internet professional services, computer attacks, personal injury, regulatory actions, wrongful acts, contractual liability, privacy policy, and insured versus insured. The Contractor shall ensure that coverage under this policy continues for a period of thirty-six (36) months after completion of services.

7. Fidelity Bond (Employee Dishonesty) in the sum of not less than \$50,000.

All such insurance shall remain in effect until final payment is made and the Project is accepted by the City. If the Contractor receives notice of non-renewal or material adverse change of any of the required coverages, the Contractor shall promptly advise the City in writing. Failure of the Contractor to promptly notify the City on non-renewal or material adverse change of any of the required coverages terminates the Agreement as of the date that the Contractor should have given notification to the City. The insurance policies shall contain or be endorsed to contain, the following provisions:

A provision that coverage afforded under such policies shall not expire, be canceled or altered without at least thirty (30) days prior written notice to the City.

Workers' Compensation and Employer's Liability and Property insurance policies shall contain a waiver of subrogation in favor of the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers.

Commercial General Liability, Automobile Liability Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) insurance policies shall include an endorsement making the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers Additional Insureds under such policies.

A copy of these endorsements shall be provided to the City.

Certificates of Insurance showing that such coverage is in force shall be filed under this Contract by the Contractor to the City.

The obligations for the Contractor to procure and maintain insurance shall not be construed to waive or restrict other obligations and it is understood that insurance in no way limits liability of the Contractor whether or not same is covered by insurance.

Certificate Holder should read: The City of Sandy Springs, 7840 Roswell Road, Building-500, Sandy Springs, Georgia 30350.

## **BONDING REQUIREMENTS**

Each bid must be accompanied with a BID BOND (bond only: certified checks or other forms are not acceptable) in an amount equal to five percent (5%) of the base bid, payable to the City of Sandy Springs. Said bid bond guarantees the bidder will enter into a contract to construct the project strictly within the terms and conditions stated in this bid and in the bidding and contract documents, should the construction contract be awarded.

The Successful Bidder shall be required to furnish a bond for the faithful performance on the contract and a bond to secure payment of all claims for materials furnished and/or labor performed in performance of the project, both in amounts equal to one hundred percent (100%) of the contract price.

The Successful Bidder shall also be required to furnish a Maintenance Bond, in the amount of one-third (1/3) of the contract price, guaranteeing the repair or replacement caused by defective workmanship or materials for a period of one (1) year from the completion of construction.

Bonds shall be issued by a corporate surety appearing on the Treasury Department's most current list (Circular 570 as amended) and be authorized to do business in the State of Georgia.

Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners shall execute Bond.

**QUALIFICATIONS SIGNATURE AND CERTIFICATION**  
**(Bidder to sign and return)**

I certify that this offer is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a proposal for the same materials, supplies, equipment, or services and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of State and Federal Law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of the proposal and certify that I am authorized to sign this proposal for the proposer. I further certify that the provisions of the Official Code of Georgia Annotated, Sections 45-10-20 et. seq., have not been violated and will not be violated in any respect.

Authorized Signature\_\_\_\_\_Date\_\_\_\_\_

Print/Type Name\_\_\_\_\_

Print/Type Company Name Here\_\_\_\_\_



**SAMPLE  
CONTRACT AGREEMENT**

**For**

**Lost Corners Preserve Parking Improvements**  
**("Project")**

**Between**

**CITY OF SANDY SPRINGS, GEORGIA**  
**("City")**

**and**

**\_\_\_\_\_**  
**("Contractor")**

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## **CONTRACT AGREEMENT**

This Agreement is made by and between the City of Sandy Springs, a political subdivision of the State of Georgia (hereinafter referred to as the City) and Contractor Name, (hereinafter referred to as the Contractor) under seal for construction of the Lost Corners Preserves Parking Improvements Project (hereinafter referred to as the Project);

WHEREAS, the Contractor desires to enter into this Agreement for construction of the Project and has represented to the City that it is qualified (**meaning a Prequalified Prime Contractor listed by the Georgia Department of Transportation, Office of Contract Administration**) and experienced to provide such services necessary for construction of the Project (the City requires that the Contractor and to comply with all federal, state and local legal requirements imposed on the Project as the result of federal funding and the City has relied on such representation);

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, it is agreed by and between the Contractor and the City as follows:

### **ARTICLE I**

#### **THE CONTRACT AND THE CONTRACT DOCUMENTS**

##### **1.1 The Contract**

1.1.1 The Contract between the City and the Contractor, of which this Agreement is a part, consists of the Contract Documents. It shall be effective on the date this Agreement is executed by the last party to execute it.

##### **1.2 The Contract Documents**

1.2.1 The Contract Documents consist of this Agreement, General Conditions, Special Provisions, the Technical Specifications, the Drawings and Plans, Bidding Documents, all Change Orders and Field Orders issued hereafter, the base bid made by the Contractor in response to the City's Invitation to Bid No. 15-012 (the "Bid"), and any other amendments hereto executed by the parties hereafter, together with the following (if any):

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Documents not enumerated in this Paragraph 1.2 are not Contract Documents and do not form a part of this Contract.

##### **1.3 Entire Agreement**

1.3.1 The Contract Documents constitute the entire and exclusive agreement between the City and the Contractor with reference to the Project.

##### **1.4 Subletting, Assignment, or Transfer**

1.4.1 It is understood by the parties to this Agreement that the Work of the Contractor is considered personal by the City. The Contractor agrees not to assign, sublet, or transfer any or all of its interest in this Agreement without prior written approval of the City.

1.4.2 The City reserves the right to review all subcontracts prepared in connection with the Agreement, and the Contractor agrees that it shall submit to the City proposed subcontract documents together with Subcontractor cost estimates for the City's review and written concurrence in advance of their execution.

1.4.3 All subcontracts in the amount of \$10,000.00 or more shall include the provisions set forth in this Agreement.

## **1.5 No Privity with Others**

1.5.1 Nothing contained in this Contract shall create, or be interpreted to create, privity or any other contractual agreement between the City and any person or entity other than the Contractor.

## **1.6 Intent and Interpretation**

1.6.1 The intent of this Contract is to require complete, correct and timely execution of the Work. Any Work that may be required, implied or inferred by the Contract Documents, or any one or more of them, as necessary to produce the intended result shall be provided by the Contractor for the Contract Price, as hereinafter defined.

1.6.2 This Contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one Contract Document shall be considered as required by the Contract.

1.6.3 When a word, term or phrase is used in this Contract, it shall be interpreted or construed, first, as defined herein; second, if not defined, according to its generally accepted meaning in the construction industry; and third, if there is no generally accepted meaning in the construction industry, according to its common and customary usage.

1.6.4 The words include, includes, or including, as used in this Contract, shall be deemed to be followed by the phrase, without limitation.

1.6.5 The specification herein of any act, failure, refusal, omission, event, occurrence or condition as constituting a material breach of this Contract shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence or condition shall be deemed not to constitute a material breach of this Contract.

1.6.6 Words or terms used as nouns in this Contract shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

1.6.7 The Contractor shall have a continuing duty to read, carefully study and compare each of the Contract Documents, the shop drawings and the product data and shall give written notice to the City of any inconsistency, ambiguity, error or omission which the Contractor may discover with respect to these documents before proceeding with the affected Work. The issuance or the express or implied approval by the City of the Contract Documents, shop drawings or product data shall not relieve the Contractor of the continuing duties imposed hereby, nor shall any such approval be evidence of the Contractor's compliance with this Contract. **HOWEVER, THE CITY MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO THE CONTRACTOR CONCERNING THE DOCUMENTS FOR THE PROJECT, INCLUDING THE DRAWINGS AND SPECIFICATIONS FOR THE PROJECT.** By the execution hereof, the Contractor acknowledges and represents that it has received, reviewed and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated and sufficient for construction, and that the Contractor has not, does not, and will not rely upon any representation or warranties by the City concerning such documents as no such representation or warranties have been or are hereby made.

1.6.8 Neither the organization of any of the Contract Documents into divisions, sections, paragraphs, articles, (or other categories), nor the organization or arrangement of the design, shall control the Contractor in dividing the Work or in establishing the extent or scope of the Work to be performed by Subcontractors.

## **1.7 Ownership of Contract Documents**

1.7.1 The Contractor may be provided, have access to or become aware of the City's Confidential Information including the City's strategic plans, employee data, customer data and other technical and business information of the City (collectively referred to as the "Confidential Information"). The term Confidential Information includes the deliverables as well as all information generated by the Contractor that contains, references or is derived from the Confidential Information and the Services including, without limitation, the Contractor's summaries, analysis, extracts, working papers and notes relating to the Services and the Deliverables (referred to as the "Working Papers"). The Contractor agrees not to disclose the Confidential Information to third parties without the prior written approval of the City and not to make use of the Confidential Information other than as needed to perform the Services. The Contractor further agrees that it will only disclose the Confidential Information to its personnel on a need-to-know basis solely for the performance of the Services and will protect the Confidential Information with the same degree of care that the Contractor uses to protect its own confidential information, but no less than reasonable care or as the various laws may require or impose.

All Confidential Information as well as other documents, data and information provided to the Contractor by the City is and will remain the property of the City to the extent that it was the property of the City at the time it was provided to the Contractor.

All Confidential Information shall be returned to the City by the Contractor within five (5) business days of the completion of the Services under this Contract. The Contractor will keep no copies of the Confidential Information except that the Contractor may retain one copy of the Working Papers as required by law, regulation, professional standards or reasonable business practice. If requested by the City, an officer of the Contractor will certify in writing that, to the best of his/her knowledge, information and belief, all Confidential Information and all copies thereof (except for one copy of the Working Papers) have been delivered to the City or destroyed.

The Contract Documents, and each of them, shall remain the property of the City. The Contractor shall have the right to keep one record set of the Contract Documents upon completion of the Project; provided, however, that in no event shall Contractor use, or permit to be used, any or all of such Contract Documents on other projects without the City's prior written authorization.

## **1.8 Hierarchy of Contract Documents**

1.8.1 In the event of any conflict, discrepancy, or inconsistency among any of the Contract Documents, the following hierarchy shall control: (a) as between figures given on drawings and the scaled measurements, the figures shall govern; (b) as between large scale drawings and small scale drawings, the large scale shall govern; (c) as between drawings and specifications, the requirements of the specifications shall govern; (d) as between the Contract Agreement and General and the specifications, the requirements of the Contract Agreement shall govern. As set forth hereinabove, any and all conflicts, discrepancies, or inconsistencies shall be immediately reported to the City in writing by the Contractor.

## **ARTICLE II**

### **THE WORK**

#### **2.1 Contractor Responsibility**

2.1.1 The Contractor shall perform all of the Work required, implied or reasonably inferable from, this Contract.

## **2.2 “Work” Defined**

2.2.1 The term Work shall mean whatever is done by or required of the Contractor to perform and complete its duties under this Contract, including the following: construction of the whole or a designated part of the Project; furnishing of any required surety bonds and insurance; and the provision or furnishing of labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, permits and licenses required of the Contractor, fuel, heat, light, cooling and all other utilities as required by this Contract. The Work to be performed by the Contractor is generally described in Exhibit A, SCOPE OF SERVICES, attached hereto and incorporated herein.

## **2.3 Review of Work**

2.3.1 Authorized representatives of the City, GDOT, and affected federal agencies may at all reasonable times review and inspect the activities and data collected under the terms of the Contract and any amendments thereto, including but not limited to, all reports, drawings, studies, specifications, estimates, maps, and computations, prepared by or for the City.

## **2.4 Workday and Restrictions, Suspension and Interruption**

2.4.1 Normal workday for the Work shall be from 8:00 A.M. to 5:00 P.M. and the normal work week shall be Monday through Friday. The City will consider extended workdays or work weeks upon written request on a case-by-case basis. The City may restrict work hours in certain locations or at certain times of the day. No work will be allowed on national holidays (i.e., Memorial Day, July 4<sup>th</sup>, Labor Day, etc.). The City may order the Contractor in writing to suspend, delay or interrupt all or any part of the Work for such period of time as it may determine appropriate for the convenience of the City. The time for completion of the Work shall be extended by the number of days the Work is suspended. The City shall not be responsible for any claims, damages or costs stemming from any delay of the Project.

## **2.5 Work to be performed by the Prime Contract**

2.5.1 Tasks constituting of at least fifty-one percent (51%) of the value of this contract must be performed directly by the prime contractor and shall not be sub-contracted to other firms.

2.5.2 The contractor shall identify which tasks shall be self-performed.

## **ARTICLE III**

### **CONTRACT TIME**

## **3.1 Time and Liquidated Damages**

3.1.1 The Contractor shall not proceed to furnish such services and the City shall not become obligated to pay for same until a written authorization to proceed (“Notice to Proceed”) has been sent to the Contractor from the City. The Contractor shall commence the Work no later than ten (10) days after the effective date of the Notice to Proceed and shall achieve Substantial Completion of the Work, as hereinafter defined, no later than one hundred and twenty (120) Calendar Days, in accordance with the Contract Documents. The number of calendar days from the date on which the Work is permitted to proceed, through the date set forth for Substantial Completion, shall constitute the Contract Time. The Work shall be carried on expeditiously, it being understood, however, that this Agreement may be extended or continued in force by the parties hereto in writing as provided herein.

3.1.2 The Contractor shall pay the City the sum of \$500.00 per day for each and every calendar day of unexcused delay in achieving Substantial Completion beyond the date set forth herein for Substantial Completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the City, estimated at or before the time of executing this Contract. When the City reasonably believes that Substantial Completion will be inexcusably delayed, the City shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the City to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Substantial Completion, or any part thereof, for which the City has withheld payment, the City shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

### **3.2 Substantial Completion**

3.2.1 Substantial Completion shall mean the stage of the work when Sandy Springs has determined all pay items are sufficiently complete allowing the newly constructed facilities to be used for their intended purpose. Partial use or occupancy of the Project shall not result in the Project being deemed substantially complete, and such partial use or occupancy shall not be evidence of Substantial Completion.

### **3.3 Time is of the Essence**

3.3.1 All limitations of time set forth in the Contract Documents are of the essence of this Contract.

## **ARTICLE IV**

### **CONTRACT PRICE**

#### **4.1 The Contract Price**

4.1.1 The total contract amount for the Project (the "Contract Price") shall be as set forth in the bid schedule ("Bid Schedule") attached hereto as EXHIBIT B, BID SCHEDULE and incorporated herein. Payment to the Contractor pursuant to the Bid Schedule is full payment for the complete scope of services. The Contract Price shall not be modified except by Change Order as provided in this Contract.

## **ARTICLE V**

### **PAYMENT OF THE CONTRACT PRICE**

#### **5.1 Bid Schedule**

5.1.1 The Contractor shall invoice and be paid pursuant to the Bid Schedule contained in the Contract Documents.

#### **5.2 Payment Procedure**

5.2.1 The City shall pay the Contract Price to the Contractor as provided below.

5.2.2 Based upon the Contractor's invoices for payment submitted to the City, the City shall make progress payments to the Contractor on account of the Contract Price.

5.2.3 On or before the 5th day of each month after commencement of the Work, the Contractor shall submit an invoice for Work satisfactorily completed as evaluated by an inspector representing the City pursuant to the Bid Schedule. The invoice shall be in such form and manner, and with such supporting data and content, as the

City may require. Therein, the Contractor may request payment for ninety percent (90%) of that portion of the Contract Price properly allocable to Contract requirements properly provided, labor, materials and equipment properly incorporated into the Work plus ninety percent (90%) of that portion of the Contract Price properly allocable to materials or equipment properly stored on-site (or elsewhere if approved in advance in writing by the City) for subsequent incorporation into the Work, less the total amount of previous payments received from the City. Payment for stored materials and equipment shall be conditioned upon the Contractor's proof satisfactory to the City, that the City has title to such materials and equipment and shall include proof of required insurance. Such invoice shall be signed by the Contractor and shall constitute the Contractor's representation that the Work has progressed to the level for which payment is requested in accordance with the Schedule of Work, that the Work has been properly installed or performed in full accordance with this Contract, and that the Contractor knows of no reason why payment should not be made as requested. Thereafter, the City will review the invoice and may also review the Work at the Project Site or elsewhere to determine whether the quantity and quality of the Work is as represented in the invoice and is as required by this Contract. The City shall make partial payments on account of the Contract Price to the Contractor within thirty (30) days following receipt of each invoice. The amount of each partial payment shall be the amount approved for payment less such amounts, if any, otherwise owing by the Contractor to the City or which the City shall have the right to withhold as authorized by this Contract. The City shall not be precluded from the exercise of any of its rights as set forth in Paragraph 5.3 herein below; PROVIDED, HOWEVER, that when fifty (50) percent of the Contract value, including Change Orders and other additions to the Contract value, provided for by the Contract Documents is due, and the manner of completion of the Contract Work and its progress are reasonably satisfactory to the City, the City shall withhold no more retainage. At the discretion of the City, and with the approval of the Contractor, the retainage of any Subcontractor may be released separately as the Subcontractor completes its Work. If, however, after discontinuing the retention, the City determines that the Work is unsatisfactory or has fallen behind schedule, retention may be resumed at the previous level. If retention is resumed by the City, the Contractor and Subcontractors shall be entitled to resume withholding retainage accordingly. The rights of the City set forth herein to retainage are in addition to all of the other rights and remedies of the City set forth in this Agreement.

5.2.4 The Contractor warrants that upon submittal of an invoice, all Work for which payments have been received from the City shall be free and clear of liens, claims, security interest or other encumbrances in favor of the Contractor or any other person or entity whatsoever.

5.2.5 The Contractor shall promptly pay each Subcontractor out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which such Subcontractor is entitled. In the event the City becomes informed that the Contractor has not paid a Subcontractor as herein provided, the City shall have the right, but not the duty, to issue future checks in payment to the Contractor of amounts otherwise due hereunder naming the Contractor and such Subcontractor as joint payees. Such joint check procedure, if employed by the City, shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit the City to repeat the procedure in the future.

5.2.6 No progress payment, nor any use or occupancy of the Project by the City, shall be interpreted to constitute an acceptance of any Work not in strict accordance with this Contract.

### **5.3 Withheld Payment**

5.3.1 The City may decline to make payment, may withhold funds, and, if necessary, may demand the return of some or all of the amounts previously paid to the Contractor, to protect the City from loss because of:

- (a) defective Work not remedied by the Contractor or, in the opinion of the City, unlikely to be remedied by the Contractor;
- (b) claims of third parties against the City or the City's property;

- (c) failure by the Contractor to pay Subcontractors or others in a prompt and proper fashion;
- (d) evidence that the balance of the Work cannot be completed in accordance with the Contract for the unpaid balance of the Contract Price;
- (e) evidence that the Work will not be completed in the time required for substantial or final completion;
- (f) persistent failure to carry out the Work in accordance with the Contract;
- (g) damage to the City or a third party to whom the City is, or may be, liable.

In the event that the City makes written demand upon the Contractor for amounts previously paid by the City as contemplated in this Subparagraph 5.3.1, the Contractor shall promptly comply with such demand.

#### **5.4 Punch List**

5.4.1 When the Contractor believes that the Work is substantially complete, the Contractor shall so notify the City. If the City deems the work is substantially complete, the City shall make a preliminary final inspection of the Project and shall submit to the Contractor a list of items to be completed or corrected (the "Punch List"). The Contractor shall complete all items on the Punch List within twenty-one (21) calendar days from the date of issuance of the Punch List by the City. If the Contractor is already in liquidated damages, as herein provided, prior to beginning the Punch List, then liquidated damages will be postponed for the twenty-one (21) calendar days. Once the twenty-one (21) calendar days expire, then liquidated damages will continue to accrue. In any case, once the twenty-one (21) calendar days expire after the Punch List is submitted to the Contractor, then liquidated damages will be assessed.

#### **5.5 Completion and Final Payment**

5.5.1 When all of the Work is finally complete and the Contractor is ready for a final inspection, the Contractor shall notify the City thereof in writing. Thereupon, the City will make final inspection of the Work and, if the Work is complete in full accordance with this Contract and this Contract has been fully performed, the Contractor is entitled to the remainder of the unpaid Contract Price as hereinafter provided in Subparagraph 5.5.3. Guarantees required by the Contract shall commence on the date of final completion of the Work.

5.5.1.1 If the Contractor fails to achieve final completion within the time fixed therefor by the City, the Contractor shall pay the City the sum of \$ 500.00 (as stipulated in GDOT Standard Specifications 108.08) per day for each and every calendar day of unexcused delay in achieving final completion beyond the date set forth herein for final completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the City, estimated at or before the time of executing this Contract. When the City reasonably believes that final completion will be delayed without excuse, the City shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the City to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving final completion, or any part thereof, for which the City has withheld payment, the City shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

5.5.2 The Contractor shall not be entitled to final payment unless and until it submits to the City all documents required by the Contract, including, but not limited to, its affidavit that all payrolls, invoices for materials and equipment, and other liabilities connected with the Work for which the City, or the City's property might be responsible, have been fully paid or otherwise satisfied; releases and waivers of lien from all Subcontractors of the Contractor and of any and all other parties required by the City; consent of Surety, if any,

to final payment. If any third party fails or refuses to provide a release of claim or waiver of lien as required by the City, the Contractor shall furnish a bond satisfactory to the City to discharge any such lien or indemnify the City from liability.

5.5.3 Upon a determination by an inspector representing the City that the Work is complete in full accordance with this Contract, the City shall pay the Contractor an amount sufficient to increase total payments to the Contractor to one hundred percent (100%) of the Contract Price less two hundred percent (200%) of the reasonable cost as determined by the City for completing all incomplete Work, correcting and bringing into conformance all defective and nonconforming Work, and handling all unsettled claims.

The City shall make final payment of all sums due the Contractor within thirty (30) days of final completion of the Project as determined by an inspector representing the City.

5.5.4 Acceptance of final payment shall constitute a waiver of all claims against the City by the Contractor except for those claims previously made in writing against the City by the Contractor, pending at the time of final payment, and identified in writing by the Contractor as unsettled at the time of its request for final payment.

## **ARTICLE VI**

### **THE CITY**

#### **6.1 City Responsibility**

6.1.1 Excluding permits and fees normally the responsibility of the Contractor, the City shall obtain all approvals, easements, and the like required for construction and shall pay for necessary assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

#### **6.2 Right to Stop Work**

6.2.1 If the Contractor persistently fails or refuses to perform the Work in accordance with this Contract, the City may order the Contractor to stop the Work, or any described portion thereof, until the cause for stoppage has been corrected no longer exists, or the City orders that Work be resumed. In such event, the Contractor shall immediately obey such order.

#### **6.3 City's Right to Carry Out Work**

6.3.1 If the City determines to order the Contractor to stop the Work under the provisions of Paragraph 6.2, the City shall provide notice to the Contractor and the Contractor's surety under the performance bond that they have seven (7) days to provide adequate assurance to the City that the cause of such stoppage will be eliminated or corrected and provide the City with a plan to remedy the cause of such Work stoppage. If the Contractor and the surety fail within seven (7) days of such Work stoppage to provide such assurance, then the City may, without prejudice to any other rights or remedies the City may have against the Contractor, proceed to carry out the remedies necessary to eliminate or correct the cause of such Work stoppage. Upon proceeding to perform or cause to be performed any corrective actions, the City shall provide notice to the Contractor and the surety of action being taken by the City. In such a situation, an appropriate Change Order shall be issued deducting from the Contract Price the cost of correcting the subject deficiencies. If the unpaid portion of the Contract Price is insufficient to cover the amount due the City, the Contractor and the surety shall be responsible for paying the difference to the City.

## **ARTICLE VII**

## **THE CONTRACTOR**

### **7.1 Duties with Respect to Documents**

7.1.1 The Contractor is again reminded of its continuing duty set forth in Subparagraph 1.6.7. The Contractor shall perform no part of the Work at any time without adequate Contract Documents or, as appropriate, approved shop drawings, product data or samples for such portion of the Work. If the Contractor performs any of the Work knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the City, the Contractor shall bear responsibility for such performance and shall bear the cost of correction.

### **7.2 Manner of Performance**

7.2.1 The Contractor shall perform the Work strictly in accordance with this Contract.

### **7.3 Supervision**

7.3.1 The Contractor shall supervise and direct the Work using the Contractor's best skill, effort and attention. The Contractor shall be responsible to the City for any and all acts or omissions of the Contractor, its employees and others engaged in the Work on behalf of the Contractor.

### **7.4 Compliance**

7.4.1 The Contractor's performance of the Work shall comply with all federal and state legal requirements imposed on GDOT including specifically, but not limited to, the provisions governing GDOT's authority to contract, Sections 32-2-60 through 32-2-77 of the Official Code of Georgia Annotated; GDOT's Rules and Regulations Governing the Prequalification of Prospective Bidders, Chapter 672-5; and GDOT's Standard Specifications, Construction of Transportation Systems (current edition), and Special Provisions modifying them, except as noted in the General Conditions to the Contract including in the Contract Documents. The Contractor shall require all subcontracts for construction of the Project to incorporate the requirements of this Subparagraph.

7.4.2 The Contractor shall comply with the provisions of Federal Form-1273, attached hereto as EXHIBIT C, REQUIRED CONTRACT PROVISIONS – FEDERAL AID CONSTRUCTION CONTRACTS, and incorporated herein. The Contractor further agrees to require compliance with and physical incorporation of the provisions of Federal Form-1273 into all subcontracts for construction of the Project.

7.4.3 The Contractor shall comply with and shall require its Subcontractors to comply with the regulations for compliance with Title VI of the Civil Rights Act of 1964, as amended, and 23 CFR 200, as stated in EXHIBIT D, NOTICE TO CONTRACTORS - COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, attached hereto and incorporated herein.

7.4.4 The Contractor shall comply with the provisions of Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) (43 CFR 14895) and shall physically include the provisions of Executive Order 11246 in each subcontract in excess of \$10,000. A copy of Executive Order 11246 (43 CFR 14895) is attached to this Agreement as EXHIBIT E, STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246) (43 CFR 14895), and incorporated herein.

7.4.5 The Contractor shall certify that the provisions of Section 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated relating to the "Drug-Free Workplace Act" have been complied with in full, in the form attached hereto as EXHIBIT F, CERTIFICATION OF SPONSOR - DRUG-FREE WORKPLACE, and

incorporated herein.

7.4.6 The Contractor shall subcontract a minimum of N/A percent (N/A%) of the total amount of Project funds to Disadvantaged Business Enterprise ("DBE"), as defined and provided for under the Federal Rules and Regulations 49 CFR 23 and 26, and as outlined in EXHIBIT G, DBE REQUIREMENTS, attached hereto and incorporated herein.

7.4.7 The Contractor shall comply with and shall require its Subcontractors to comply with all applicable requirements of the American with Disabilities Act of 1990 ("ADA"), 42 U.S.C. 12101, et seq. and 49 U.S.C. 322; Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. 791, and regulations and amendments thereto.

7.4.8 The Contractor shall provide to the City in the form attached hereto as EXHIBIT H, CONTRACTOR CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS, a certification regarding debarment, suspension, ineligibility and voluntary exclusion in compliance with Executive Order 12549 and 49 CFR 29, according to instructions attached to the certification form. As a part of the Exhibit H certification, the Contractor agrees to include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transaction," as provided by GDOT without modification, in all lower tier covered transactions and in all solicitations for lower tier transactions, and shall cause the lower tier participant or Subcontractor to submit the certification attached hereto as EXHIBIT I, LOWER TIER CONTRACTOR CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS, according to the instructions attached to the certification form.

7.4.9 The Contractor shall comply with and shall require its Subcontractors to comply with all applicable requirements of the Davis-Bacon Act of 1931, 40 U.S.C. 276(a), as prescribed by 23 U.S.C. 113 for federal aid highway projects, except roadways classified as local roads or rural minor collectors. **Note: Davis-Bacon Wage Rates not required for this contract.**

7.4.10 The Contractor shall comply with and shall require its Subcontractors to comply with Section 25-9-1, et seq. of the Georgia Code Annotated, "Georgia Utility Facility Protection Act", CALL BEFORE YOU DIG 1-800-282-7411.

7.4.11 The Contractor shall comply with and shall cause its Subcontractors to comply with the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330), as supplemented by Department of Labor Regulations (29 CFR Part 5).

7.4.12 The Contractor shall comply with and shall cause its Subcontractors to comply with the Copeland "Anti-Kickback" Act (18 U.S.C. 874), as supplemented in Department of Labor Regulations (29 CFR, Part 3).

7.4.13 The Contractor shall execute a certification and shall cause all Subcontractors to execute a certification in the form of EXHIBIT J, CERTIFICATION OF CONTRACTOR – GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT, attached hereto and incorporated herein. Pursuant to the certification, Contractor agrees to comply with all applicable requirements of the Georgia Security and Immigration Compliance Act of 2006 as codified in O.C.G.A. Sections 13-10-90 and 13-10-91 and regulated in Chapter 300-10-1 of the Rules and Regulations of the State of Georgia, "Public Employers, Their Contractors and Subcontractors Required to Verify New Employee Work Eligibility Through a Federal Work Authorization Program," accessed at <http://www.dol.state.ga.us>.

7.4.14 The Contractor acknowledges and agrees that the failure to complete appropriate certifications or the submission of a false certification as required herein shall result in the termination of this Agreement as provided in Article XII herein.

## **7.5 Warranty**

7.5.1 The Contractor warrants to the City that all labor furnished to progress the Work under this Contract will be competent to perform the tasks undertaken, that the product of such labor will yield only first-class results, that materials and equipment furnished will be of good quality and new unless otherwise permitted by this Contract, and that the Work will be of good quality, free from faults and defects and in strict conformance with this Contract. All Work not conforming to these requirements may be considered defective. Unless otherwise specified in this Contract, acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the City's rights under any warranty or guarantee. The Contractor shall remedy all defects in the Work and pay for damage to the Work and/or to other City property resulting from defective Work, which shall appear within a minimum period of one (1) year from the date of acceptance of the Work under this Contract, unless a longer period is specified. The one (1) year warranty period shall begin after any repairs are performed, if needed.

## **7.6 Permits, Inspections, Fees and Licenses**

Except as otherwise provided herein, the Contractor shall obtain and pay for all permits, inspections, fees and licenses necessary and ordinary for the Work. The Contractor shall comply with all lawful requirements applicable to the Work and shall give and maintain any and all notices required by applicable law, ordinance, or regulation pertaining to the Work.

## **7.7 Supervision**

7.7.1 The Contractor shall employ and maintain at the Project Site only competent supervisory personnel. Absent written instruction from the Contractor to the contrary, the superintendent shall be deemed the Contractor's authorized representative at the Project Site and shall be authorized to receive and accept any and all communications from the City.

## **7.8 Schedules**

7.8.1 The Contractor shall submit to the City on a weekly basis a Schedule of Work to be performed for the next two (2) weeks. The Schedule of Work must be delivered to the City each Thursday no later than 12:00 noon. The Contractor's Schedule of Work shall be prepared in such form, with such detail, and supported by such data as the City may require. The City reserves the right to prohibit Work on any section of the Project not included in the weekly Schedule of Work. The Schedule of Work must accurately represent the intended Work and cannot be vague or broad, such as listing all Work in the Contract. The violation of this provision by the Contractor shall constitute a material breach of this Contract. THE PARTIES SPECIFICALLY AGREE THAT ANY FLOAT CONTAINED IN THE SCHEDULES SHALL BELONG TO THE PROJECT AND IN NO EVENT SHALL THE CONTRACTOR MAKE CLAIM FOR ANY ALLEGED DELAY, ACCELERATION, OR EARLY COMPLETION SO LONG AS THE PROJECT IS COMPLETED WITHIN THE CONTRACT TIME. Strict compliance with the requirements of this Paragraph is a condition precedent for payment to the Contractor, and failure by the Contractor to strictly comply with said requirements shall constitute a material breach of this Contract.

## **7.9 Contract to be maintained at Project Site**

The Contractor shall continuously maintain at the Project Site, for the benefit of the City, one record copy of this Contract marked to record on a current basis changes, selections and modifications made during construction. Additionally, the Contractor shall maintain at the Project Site for the City the approved shop drawings, product data, samples and other similar required submittals. Upon final completion of the Work, all of these record documents shall be delivered to the City.

## **7.10 Shop Drawings, Product Data and Samples**

7.10.1 Shop drawings, product data, samples and other submittals from the Contractor do not constitute Contract Documents. Their purpose is merely to demonstrate the manner in which the Contractor intends to implement the Work in conformance with information received from the Contract Documents.

7.10.2 The Contractor shall not perform any portion of the Work requiring submittal and review of shop drawings, product data or samples unless and until such submittal shall have been approved by the City. Approval by the City, however, shall not be evidence that Work installed pursuant thereto conforms with the requirements of this Contract.

## **7.11 Cleaning the Project Site and the Project**

7.11.1 The Contractor shall keep the Project Site reasonably clean during performance of the Work. Upon final completion of the Work, the Contractor shall clean the Project Site and the Project and remove all waste, together with all of the Contractor's property from the Project Site.

## **7.12 Access to Work**

7.12.1 Access to the Work shall be given to the City, GDOT and any affected federal agency requiring access to the Work at all times from commencement of the Work through final completion. The Contractor shall take whatever steps necessary to provide access when requested.

## **7.13 Indemnity**

7.13.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the City and GDOT, their boards, officials, directors, officers, employees, representatives, agents, and volunteers from and against all liability, claims, damages, losses and expenses, including attorneys' fees, arising out of or resulting from performance of the Work, provided that such liability, claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such liability, claim, damage, loss or expense is caused in part by a party indemnified hereunder.

7.13.2 In claims against any person or entity indemnified under this Paragraph 7.13 by an employee of the Contractor, a Subcontractor, any one directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Paragraph 7.13 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

7.13.3 The Contractor shall ensure that the provisions of this Paragraph 7.13 are included in all contracts and subcontracts for the performance of Work under this Agreement.

## **7.14 Means, Methods, Techniques, Sequences, Procedures and Safety**

7.14.1 The Contractor is fully responsible for, and shall have control over, all construction means, methods, techniques, sequences, procedures and safety, and shall coordinate all portions of the Work required by the Contract Documents. The Contractor shall confine its apparatus, material and the operations of its workers to limits/requirements indicated by law, ordinances, permits, codes and any restrictions of the City, and shall not unreasonably encumber the premises with its materials or supplies.

The Contractor shall adequately protect its own property from damage, will protect the City's property from damage or loss, and will take all necessary precautions during the progress of the work to protect all persons and the property of others from injury or damage. The Contractor shall take all precautions for the safety of employees, and shall comply with all applicable provisions of Federal, State and local safety laws, building codes and any restrictions of the City to prevent accidents or injury to persons on, about, or adjacent to the premises where work is being performed.

The Contractor shall erect and properly maintain at all times as required by the conditions, service and work, all necessary safeguards for the protection of its employees, the Contractor's employees, and the public, and shall post signs warning against potential hazards.

#### **7.15 Separate Contracts**

7.15.1 The City reserves the right to perform work on the premises with its own forces or by the use of other contractors. In such event, the Contractor shall fully cooperate with the City and such other contractors and shall coordinate, schedule and manage its work so as not to hinder, delay or otherwise interfere with the separate work of the City or other contractors.

#### **7.16 Maintenance of Contract Cost Records**

7.16.1 The Contractor shall maintain all books, documents, papers, accounting records, and other evidence pertaining to costs incurred on the Project and used in support of its Bid and shall make such material available at all reasonable times during the period of the Contract, and for three (3) years from the date of final payment under the Contract, for inspection by GDOT and any reviewing agencies, and copies thereof shall be furnished upon request. The Contractor agrees that the provisions of this Subparagraph shall be included in any agreement it may make with any Subcontractor, assignee, or transferee.

### **ARTICLE VIII**

#### **CONTRACT ADMINISTRATION**

#### **8.1 Claims by the Contractor**

8.1.1 All Contractor claims shall be initiated by written notice and claim to the City. Such written notice and claim must be furnished within seven (7) days after occurrence of the event, or the first appearance of the condition, giving rise to the claim.

8.1.2 Pending final resolution of any claim of the Contractor, the Contractor shall diligently proceed with performance of this Contract and the City shall continue to make payments to the Contractor in accordance with this Contract. The resolution of any claim under this Paragraph 8.1 shall be reflected by a Change Order executed by the City and the Contractor.

8.1.3 **Claims for Concealed and Unknown Conditions** -- Should concealed and unknown conditions encountered in the performance of the Work (a) below the surface of the ground or (b) in an existing structure be at variance with the conditions indicated by this Contract, or should unknown conditions of an unusual nature differing materially from those ordinarily encountered in the area and generally recognized as inherent in Work of the character provided for in this Contract, be encountered, the Contract Price shall be equitably adjusted by Change Order upon the written notice and claim by either party made within seven (7) days after the first observance of the condition. As a condition precedent to the City having any liability to the Contractor for concealed or unknown conditions, the Contractor must give the City written notice of, and an opportunity to observe, the condition prior to disturbing it. The failure by the Contractor to make the written notice and claim as provided in this Subparagraph shall constitute a waiver by the Contractor of any claim arising out of or relating

to such concealed or unknown condition.

**8.1.4 Claims for Additional Costs** -- If the Contractor wishes to make a claim for an increase in the Contract Price, as a condition precedent to any liability of the City therefor, the Contractor shall give the City written notice of such claim within seven (7) days after the occurrence of the event, or the first appearance of the condition, giving rise to such claim. Such notice shall be given by the Contractor before proceeding to execute any additional or changed Work. The failure by the Contractor to give such notice prior to executing the Work shall constitute a waiver of any claim for additional compensation.

**8.1.4.1** In connection with any claim by the Contractor against the City for completion in excess of the Contract Price, any liability of the City shall be strictly limited to direct costs incurred by the Contractor and shall in no event include indirect costs or consequential damages of the Contractor. The City shall not be liable to the Contractor for claims of third parties, including Subcontractors, unless and until liability of the Contractor has been established therefor in a court of competent jurisdiction.

**8.1.5 Claims for Additional Time** -- If the Contractor is delayed in progressing any task which at the time of the delay is then critical or which during the delay becomes critical, as the sole result of any act or neglect to act by the City or someone acting in the City's behalf, or by changes ordered in the Work, unusual delay in transportation, unusually adverse weather conditions not reasonably anticipatable, fire or any causes beyond the Contractor's control, then the date for achieving Substantial Completion of the Work shall be extended upon the written notice and claim of the Contractor to the City, for such reasonable time as the City may determine. Any notice and claim for an extension of time by the Contractor shall be made not more than seven (7) days after the occurrence of the event or the first appearance of the condition giving rise to the claim and shall set forth in detail the Contractor's basis for requiring additional time in which to complete the Project. In the event the delay to the Contractor is a continuing one, only one notice and claim for additional time shall be necessary. If the Contractor fails to make such claim as required in this Subparagraph, any claim for an extension of time shall be waived.

**8.1.6 Extension of Contract Time for Unusually Adverse Weather Conditions not Reasonably Anticipated**

**8.1.6.1** Pursuant to the provisions of Subparagraph 8.1.5 of the Contract Agreement, the Contract Time may be extended upon written notice and claim of the Contractor to the City as set forth in such Subparagraph and as further set forth herein. It is, however, expressly agreed that the time for completion as stated in the Contract Documents includes due allowance for calendar days on which work cannot be performed out-of-doors.

Furthermore, in addition to the notice requirements set forth in the aforesaid Subparagraph 8.1.5, the Contractor agrees that it shall provide written notice to the City on the day of any adverse weather not anticipated and for which a request for a time extension has been, or will be, made. Said notice shall state with particularity a description of the adverse weather as well as a description of the nature and extent of any delay caused by such weather. Receipt of this notice by the City is a condition precedent to the submission of any claim for an extension of time as provided by Subparagraph 8.1.5. Furthermore, as required by Subparagraph 8.1.5, the Contractor shall submit a written claim for extension of time within seven (7) days after the occurrence of the adverse weather and such claim shall be supported by such documentation including, but not limited to, official weather reports, as the City may require. To the extent that any of the terms and conditions set forth in this paragraph are in conflict with any of the terms and conditions of Subparagraph 8.1.5 as identified herein, the terms and conditions of this paragraph shall govern and control.

**ARTICLE IX**

**SUBCONTRACTORS**

## **9.1 Definition**

9.1.1 A Subcontractor is an entity which has a direct contract with the Contractor to perform a portion of the Work.

## **9.2 Award of Subcontracts**

9.2.1 Upon execution of the Contract, the Contractor shall furnish the City, in writing, the names of persons or entities proposed by the Contractor to act as a Subcontractor on the Project. The City shall promptly reply to the Contractor, in writing, stating any objections the City may have to such proposed Subcontractor. The Contractor shall not enter into a Subcontract with a proposed Subcontractor with reference to whom the City has made timely objection. The Contractor shall not be required to subcontract with any party to whom the Contractor has objection.

9.2.2 All subcontracts shall afford the Contractor rights against the Subcontractor which correspond to those rights afforded to the City against the Contractor herein, including those rights afforded to the City by Subparagraph 12.2.1 below.

9.2.3 All subcontracts shall comply with the requirements of Paragraph 7.4 above.

## **ARTICLE X**

### **CHANGES IN THE WORK**

#### **10.1 Changes Permitted**

10.1.1 Changes in the Work within the general scope of this Contract, consisting of additions, deletions, revisions, or any combination thereof, may be ordered without invalidating this Contract, by Change Order or by Field Order.

10.1.2 Changes in the Work shall be performed under applicable provisions of this Contract and the Contractor shall proceed promptly with such changes.

#### **10.2 Change Order Defined**

10.2.1 Change Order shall mean a written order to the Contractor executed by the City, issued after execution of this Contract, authorizing and directing a change in the Work or an adjustment in the Contract Price or the Contract Time, or any combination thereof. The Contract Price and the Contract Time may be changed only by Change Order.

#### **10.3 Changes in the Contract Price**

10.3.1 Any change in the Contract Price resulting from a Change Order shall be determined as follows by mutual agreement between the City and the Contractor as evidenced by (1) the change in the Contract Price being set forth in the Change Order, (2) such change in the Contract Price, together with any conditions or requirements related thereto, being initialed by both parties and (3) the Contractor's execution of the Change Order.

10.3.2 If unit prices are provided in the Contract, and if the quantities contemplated are so changed in a proposed Change Order that application of such unit prices to the quantities of Work proposed will cause substantial inequity to the City or to the Contractor, the applicable unit prices shall be equitably adjusted.

#### **10.4 Effect of Executed Change Order**

10.4.1 The execution of a Change Order by the Contractor shall constitute conclusive evidence of the Contractor's agreement to the ordered changes in the Work, this Contract as thus amended, the Contract Price and the Contract Time. The Contractor, by executing the Change Order, waives and forever releases any claim against the City for additional time or compensation for matters relating to or arising out of or resulting from the Work included within or affected by the executed Change Order.

#### **10.5 Notice to Surety; Consent**

10.5.1 The Contractor shall notify and obtain the consent and approval of the Contractor's surety with reference to all Change Orders if such notice, consent or approval are required by the Contractor's surety or by law. The Contractor's execution of the Change Order shall constitute the Contractor's warranty to the City that the surety has been notified of and consents to, such Change Order and the surety shall be conclusively deemed to have been notified of such Change Order and to have expressly consented thereto.

### **ARTICLE XI**

#### **UNCOVERING AND CORRECTING WORK**

##### **11.1 Uncovering Work**

11.1.1 If any of the Work is covered contrary to the City's request or to any provisions of this Contract, it shall, if required by the City, be uncovered for the City's inspection and shall be properly replaced at the Contractor's expense without change in the Contract Time.

11.1.2 If any of the Work is covered in a manner not inconsistent with Subparagraph 11.1.1 above, it shall, if required by the City, be uncovered for the City's inspection. If such Work strictly conforms with the provisions of this Contract, costs of uncovering and proper replacement shall by Change Order be charged to the City. If such Work does not strictly conform with the provisions of this Contract, the Contractor shall pay the costs of uncovering and proper replacement.

##### **11.2 Correcting Work**

11.2.1 The Contractor shall immediately proceed to correct Work rejected by the City as defective or failing to conform to this Contract. The Contractor shall pay all costs and expenses associated with correcting such rejected Work, including any additional testing and inspections, and reimbursement to the City for services and expenses made necessary thereby, if any.

11.2.2 If within one (1) year after Substantial Completion of the Work any of the Work is found to be defective or not in accordance with this Contract, the Contractor shall correct it promptly upon receipt of written notice from the City. This obligation shall survive final payment by the City and termination of this Contract. With respect to Work first performed and completed after Substantial Completion, this one (1) year obligation to specifically correct defective and nonconforming Work shall be extended by the period of time which elapses between Substantial Completion and final completion of the subject Work.

11.2.3 Nothing contained in this Paragraph 11.2 shall establish any period of limitation with respect to other obligations which the Contractor has under this Contract. Establishment of the one (1) year time period in Subparagraph 11.2.2 relates only to the duty of the Contractor to specifically correct the Work.

##### **11.3 City May Accept Defective or Nonconforming Work**

11.3.1 If the City chooses to accept defective or nonconforming Work, the City may do so. In such event, the Contract Price shall be reduced by the greater of (a) the reasonable cost of removing and correcting the defective or nonconforming Work, and (b) the difference between the fair market value of the Project as constructed and the fair market value of the Project had it not been constructed in such a manner as to include defective or nonconforming Work. If the remaining portion of the unpaid Contract Price, if any, is insufficient to compensate the City for its acceptance of defective or nonconforming Work, the Contractor shall, upon written demand from the City, pay the City such remaining compensation for accepting defective or nonconforming Work.

## **ARTICLE XII**

### **CONTRACT TERMINATION**

#### **12.1 Termination by the Contractor**

12.1.1 If the Work is stopped for a period of ninety (90) days by an order of any court or other public authority, or as a result of an act of the government, through no fault of the Contractor or any person or entity working directly or indirectly for the Contractor, the Contractor may, upon ten (10) days' written notice to the City, terminate performance under this Contract and recover from the City payment for the actual reasonable expenditures of the Contractor (as limited in Subparagraph 10.3.2 above) for all Work executed and for materials, equipment, tools, construction equipment and machinery actually purchased or rented solely for the Work, less any salvage value of any such items.

12.1.2 If the City shall persistently or repeatedly fail to perform any material obligation to the Contractor for a period of fifteen (15) days after receiving written notice from the Contractor of its intent to terminate hereunder, the Contractor may terminate performance under this Contract by written notice to the City. In such event, the Contractor shall be entitled to recover from the City as though the City had terminated the Contractor's performance under this Contract for convenience pursuant to Subparagraph 12.2.1 hereunder.

#### **12.2 Termination by the City**

##### **12.2.1 For Convenience**

12.2.1.1 The City may for any reason whatsoever terminate performance under this Contract by the Contractor for convenience. The City shall give written notice of such termination to the Contractor specifying when termination becomes effective.

12.2.1.2 The Contractor shall incur no further obligations in connection with the Work and the Contractor shall stop Work when such termination becomes effective. The Contractor shall also terminate outstanding orders and subcontracts. The Contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The City may direct the Contractor to assign the Contractor's right, title and interest under terminated orders or subcontracts to the City or its designee.

12.2.1.3 The Contractor shall transfer title and deliver to the City such completed or partially completed Work and materials, equipment, parts, fixtures, information and Contract rights as the Contractor has.

##### **12.2.1.4**

- (a) The Contractor shall submit a termination claim to the City specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the City. If the Contractor fails to file a termination claim within one (1) year from the effective date of

termination, the City shall pay the Contractor an amount derived in accordance with subparagraph (c) below.

- (b) The City and the Contractor may agree to the compensation, if any, due to the Contractor hereunder.
- (c) Absent agreement to the amount due to the Contractor, the City shall pay the Contractor the following amounts:
  - (i) Contract prices for labor, materials, equipment and other services accepted under this Contract;
  - (ii) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the Work, and in terminating the Contractor's performance, plus a fair and reasonable allowance for overhead and profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if it appears that the Contractor would have not profited or would have sustained a loss if the entire Contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;
  - (iii) Reasonable costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to Subparagraph 12.2.1.2 of this Paragraph. These costs shall not include amounts paid in accordance with other provisions hereof.

The total sum to be paid the Contractor under this Subparagraph 12.2.1 shall not exceed the total Contract Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

#### **12.2.2 For Cause**

12.2.2.1 If the Contractor persistently or repeatedly refuses or fails to prosecute the Work in a timely manner, supply enough properly skilled workers, supervisory personnel or proper equipment or materials, or if it fails to make prompt payment to Subcontractors or for materials or labor, or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise is guilty of a substantial violation of a material provision of this Contract, then the City may by written notice to the Contractor and the surety, without prejudice to any other right or remedy, terminate the employment of the Contractor and take possession of the Project Site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may proceed to carry out the remedies necessary to finish the Work by whatever methods it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished.

12.2.2.2 If the unpaid balance of the Contract Price exceeds the cost of finishing the Work, including compensation for additional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the City. This obligation for payment shall survive the termination of the Contract.

12.2.2.3 In the event the employment of the Contractor is terminated by the City for cause pursuant to Subparagraph 12.2.2 and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a termination for convenience under Subparagraph 12.2.1 and the provisions of Subparagraph 12.2.1 shall apply.

### **ARTICLE XIII**

## **INSURANCE**

### **13.1 Insurance Requirements**

13.1.1 Prior to beginning Work on the Project, the Contractor shall procure and maintain for the duration of this Contract, and for one (1) years thereafter, at its sole cost and expense such insurance as will fully protect it and the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers from incidents, accidents and claims for personal injury, bodily injury, and property damage which may arise from or in connection with the performance of the work and for the Contractor's professional liability (errors and omissions) under this Contract, whether such services and work are performed by the Contractor, its agents, representatives, employees, or by any subcontractor or any tier directly employed or retained by either. The following is the minimum insurance and limits that the Contractor must maintain. If the Contractor maintains higher limits than the minimums shown below, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

All of the insurance herein specified shall be written on a form acceptable to the City and shall be A.M. Best Company rated A X or greater. See EXHIBIT K, INSURANCE REQUIREMENTS attached hereto and incorporated herein.

13.1.2 All such insurance shall remain in effect until final payment is made and the Project is accepted by the City. If the Contractor receives notice of non-renewal or material adverse change of any of the required coverages, the Contractor shall promptly advise the City in writing. Failure of the Contractor to promptly notify the City on non-renewal or material adverse change of any of the required coverages terminates the Agreement as of the date that the Contractor should have given notification to the City. The insurance policies shall contain or be endorsed to contain, the following provisions:

- (a) A provision that coverage afforded under such policies shall not expire, be canceled or altered without at least thirty (30) days prior written notice to the City.
- (b) Workers' Compensation and Employer's Liability and Property insurance policies shall contain a waiver of subrogation in favor of the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers.
- (c) Commercial General Liability, Automobile Liability Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) insurance policies shall include an endorsement making the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers Additional Insureds under such policies.

A copy of these endorsements shall be provided to the City.

Certificates of Insurance showing that such coverage is in force shall be filed under this Contract by the Contractor to the City.

The obligations for the Contractor to procure and maintain insurance shall not be construed to waive or restrict other obligations and it is understood that insurance in no way limits liability of the Contractor whether or not same is covered by insurance.

13.1.3 If the City has any objections to the coverage afforded by or provisions of the insurance required to be purchased and maintained by the Contractor, the City will notify the Contractor thereof within twenty (20) days of the date of delivery of such certificates to the City.

13.1.4 The Contractor shall provide to the City such additional information in respect of insurance provided by it as the City may reasonably request. The right of the City to review and comment on certificates of insurance is not intended to relieve the Contractor of his responsibility to provide insurance coverage as specified nor to relieve the Contractor of his liability for any claims which might arise.

13.1.5 The Contractor agrees to require its Subcontractors to obtain insurance complying with the requirements the requirements of the Contract Documents.

#### **ARTICLE XIV**

##### **DISPUTES**

No civil action with respect to any dispute, claim or controversy arising out of or relating to this Contract may be commenced without first giving fourteen (14) calendar days written notice to Sandy Springs of the claim and the intent to initiate a civil action.

#### **ARTICLE XV**

##### **INDEPENDENT CONTRACTOR**

##### **15.1 Relationship between Contractor and City**

15.1.1 The Contractor shall perform the services under this Agreement as an independent contractor and nothing contained herein shall be construed to be inconsistent with such relationship or status. Nothing in this Agreement shall be interpreted or construed to constitute the Contractor or any of its agents or employees to be the agent, employee or representative of the City. Inasmuch as the City and the Contractor are contractors independent of one another, neither has the authority to bind the other to any third person or otherwise to act in any way as the representative of the other, unless otherwise expressly agreed to in writing signed by both parties hereto. The Contractor agrees not to represent itself as the City's agent for any purpose to any party or to allow any employee or agent of the Contractor to do so, without specific prior written authorization from the City, and then only for the limited purpose stated in such authorization.

15.1.2 The Contractor shall assume full liability for any contracts or agreements that the Contractor enters into on behalf of the City without the express knowledge and prior written authorization of the City.

#### **ARTICLE XVI**

##### **COVENANT AGAINST CONTINGENT FEES**

##### **16.1 Warranty by Contractor**

16.1.1 Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for any fee, commission, percentage, brokerage or contingent fee, gift or other consideration, excepting bona fide employees maintained by Contractor for the purpose of securing business and that Contractor has not received any non-City fee related to this Agreement without the prior written consent of the City.

16.1.2 For breach or violation of this warranty, the City shall have the right to annul this Agreement without liability or at its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of any such fee, commission, percentage, brokerage or contingent fee, gift or other consideration.

#### **ARTICLE XVII**

## **MISCELLANEOUS**

### **17.1 Governing Law**

17.1.1 The Contract shall be administered and interpreted under the laws of the State of Georgia. Jurisdiction of litigation arising from this Agreement shall be in Georgia. If any part of this Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void insofar as it is in conflict with said laws, but the remainder of this Agreement shall be in full force and effect.

Whenever reference is made in the Agreement to standards or codes in accordance with which work is to be performed, the edition or revision of the standards or codes current on the effective date of this Agreement shall apply, unless otherwise expressly stated.

### **17.2 Successors and Assigns**

17.2.1 The City and Contractor bind themselves, their successors, assigns and legal representatives to the other party hereto and to successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in this Contract. The Contractor shall not assign this Contract without written consent of the City.

### **17.3 Surety Bonds**

17.3.1 The Contractor shall furnish separate performance and payment bonds to the City. Each bond shall set forth a penal sum in an amount not less than the Contract Price. Each bond furnished by the Contractor shall incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in such bonds. In the event the Contract Price is adjusted by Change Order executed by the Contractor, the penal sum of both the performance bond and the payment bond shall be deemed increased by like amount. The performance and payment bonds furnished by the Contractor shall be in form suitable to the City and shall be executed by a surety, or sureties, reasonably suitable to the City. Bonds shall be issued by a corporate surety appearing on the Treasury Department's most current list (Circular 570, as amended) and be authorized to do business in the State of Georgia. The date of the bond must not be prior to the date of the Agreement. If the Contractor is a partnership, all partners shall execute the bond.

It is mutually agreed by the parties hereto that if at any time after execution of this Agreement and the surety bonds for its faithful performance, the City shall deem the surety or sureties upon such bonds to be unsatisfactory, or if for any reason such bonds cease to be adequate to cover the performance of the Work, the Contractor shall, at its expense, within five (5) days after receipt of notice from the City to do so, furnish an additional bond or bonds in such form and amount and with such surety or sureties as shall be satisfactory to the City. In such event, no further payment to the Contractor shall be deemed due under this Agreement until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the City.

### **17.4 Notices**

#### **If to the City:**

John McDonough, City Manager  
7840 Roswell Road, Building 500  
Sandy Springs, Georgia 30350

#### **With copies to:**

Wendell Willard, City Attorney  
7840 Roswell Rd. Suite 330  
Sandy Springs, Georgia 30350

#### **If to Contractor:**

#### **With copies to:**

Contractor Contact, Title  
Address  
City, State Zip

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**IN WITNESS WHEREOF**, the parties hereto, acting through their duly authorized agents, have signed and sealed this Agreement.

**CITY OF SANDY SPRINGS, GEORGIA**

By: \_\_\_\_\_  
John McDonough, City Manager

\_\_\_\_\_  
Date of Execution

ATTEST:

By: \_\_\_\_\_  
City Clerk

(SEAL)

Approved as to Form:

By: \_\_\_\_\_  
City Attorney

**CONTRACTOR**

\_\_\_\_\_  
Date of Execution

By: \_\_\_\_\_  
Name:

\_\_\_\_\_  
(Typed or printed name)

\_\_\_\_\_  
Title

ATTEST:

By: \_\_\_\_\_  
Secretary for Corporation

(SEAL)

\_\_\_\_\_  
Witness

Executed in originals of four (4).

**EXHIBIT A**  
**TO CONTRACT AGREEMENT**  
**SCOPE OF SERVICES**

## **Scope of Work**

Work to be accomplished for this Project will include demolition, clearing and grubbing, grading, drainage improvements, concrete flatwork, concrete curbs, installation of pervious unit pavers, landscaping and other items as illustrated and described in order to construct a new parking lot in the City of Sandy Springs' Lost Corner Preserve. Lost Corner Preserve is located at the intersection of Riverside Drive and Brandon Mill Road, Sandy Springs, Georgia.

Access to the site is currently from a residential driveway that enters into the intersection. Access will be relocated to Brandon Mill Road as part of the work to be performed. Staging and storage areas for the work are limited to areas within the Limits of Disturbance illustrated on the drawings and no other areas are available. The Contractor shall provide access for City Staff to the existing farm house during all phases of the project.

Work includes, but is not necessarily limited to:

- Installation and maintenance of temporary construction fencing.
- Installation and maintenance to erosion control measures.
- Demolition of asphalt driveway, trees and fence/gate.
- Site grading.
- Construction of subsurface drainage improvements.
- Construction of surface drainage improvements.
- Probable excavation and removal of unsuitable materials near the new driveway entrance location and other areas if required.
- Installation of site lighting and all related sleeving and electrical work.
- Installation of sleeving as required to accommodate future security system work.
- Installation of concrete unit pervious paver systems.
- Installation of bollards.
- Fabrication and installation of driveway entrance gates.
- Installation of various plant materials.
- Preparation of As-Built Drawings for all subsurface drainage improvements and repairs.
- All other items as illustrated or implied on the Drawings.

**EXHIBIT B  
TO CONTRACT AGREEMENT  
BID SCHEDULE**

## BID SCHEDULE

The Bidder has carefully examined and fully understands the Contract, Plans and Specifications and other Documents hereto attached, and has made a personal examination of the Site of the proposed Work, and has satisfied himself as to the actual conditions and requirements of the Work, and hereby proposes and agrees that if his bid is accepted, he will contract with the City of Sandy Springs according to bidding Documents entitled **Lost Corner Preserve, Parking Improvements**, and Addenda, as well as the existing conditions of the project, and conditions affecting the Work, the undersigned proposes to furnish all services, labor and materials required by them in accord with said documents, including the total sum for Unit Price Items 1 through 10 below, for the sum as follows:

\_\_\_\_\_ Dollars (\$\_\_\_\_\_),  
which sum is hereinafter called "**Base Bid**".

Base Bid includes all work described in the project description and unit price Items 1 through 6 described below.

The Undersigned agrees to commence all work not less than 15 days after the date of Notice To Proceed issued by Sandy Springs Purchasing Office and to commit adequate forces on site to substantially complete all Work including punch list items and clean-up within **Seventy-Five (75)** calendar days. Sandy Springs will charge the Contractor \$1,000.00 (*One-Thousand Dollars*), per day for every day past the completion date of the Contract.

### UNIT PRICE SCHEDULE

Should rock or other unforeseen conditions be encountered, and for other indicated construction items, the Base Bid shall include a unit price quantity and total for performing the work below. These unit price totals are in addition to items indicated on the project drawings and in the project specifications. Should the amount included in the Base Bid for any of these items not be encountered, a change order will be initiated to refund to the Owner the difference at the bid unit price.

Item	Description	Unit	Qty	Unit Price	Total
1	Excavate materials determined unsuitable by Owner's Testing Agency; remove from site and dispose of.	CY	700	\$	\$
2	Fill and compact with suitable soil materials acquired onsite to replace excavated rock, unsuitable soils or other materials.	CY	700	\$	\$
3	Furnish and compact suitable soil materials acquired offsite to replace unsuitable soils or other materials.	CY	700	\$	\$
4	Domestic Water Line Replacement. If water line is encountered in the work area and must be replaced. Replace with 1" copper line to meet all codes.	LF	200	\$	\$
5	Gas Line Replacement. If gas line is encountered in the work area and must be replaced. Replace new gas line to meet all codes.	LF	200	\$	\$
<b>TOTAL BID PRICE</b>				\$	

**TOTAL BID PRICE IN WORDS:**

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## **BID PRICE CERTIFICATION**

In compliance with the attached Specification, the undersigned offers and agrees that if this Bid is accepted, by the City Council within one hundred and twenty (120) days of the date of Bid opening, that he will furnish any or all of the Items upon which Prices are quoted, at the Price set opposite each Item, delivered to the designated point(s) within the time specified in the Bid Schedule.

COMPANY\_\_\_\_\_

ADDRESS\_\_\_\_\_

AUTHORIZED SIGNATURE\_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

PRINT / TYPE NAME\_\_\_\_\_

**EXHIBIT C  
TO CONTRACT AGREEMENT**

**REQUIRED CONTRACT PROVISIONS  
FEDERAL AID CONSTRUCTION CONTRACTS  
Not Applicable for this Contract.**

**EXHIBIT D  
TO CONTRACT AGREEMENT**

**NOTICE TO CONTRACTORS  
COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964**

During the performance of this Contract, the Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

1. Compliance with Regulations: The Contractor will comply with the Regulations of the Department of Transportation relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (Title 49, Code of Federal Regulations, Part 21, hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of the Contract.
2. Nondiscrimination: The Contractor, with regard to the work performed by it afterward and prior to completion of the contract work, will not discriminate on the ground of race, color, sex, or national origin in the selection and retention of subcontracts including procurements of materials and leases of equipment. The Contractor will not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when contract covers a program set forth in Appendix B of the Regulations. In addition, the Contractor will not participate either directly or indirectly in discrimination prohibited by 23 CFR 710.405 (b).
3. Solicitations for subcontracts, including procurements of materials and equipment: In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this Contract and the Regulations relative to nondiscrimination on the ground of race, color, national origin or sex.
4. Information and Reports: The Contractor will provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.
5. Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, the Department of Transportation shall impose such Contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
  - (a) withholding of payments to the Contractors under the Contract until the Contractor complies, and/or
  - (b) Cancellation, termination or suspension of the Contract, in whole or in part.

6.       Incorporation of Provisions: The Contractor will include the provisions of paragraph (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, orders or instruction issued pursuant thereto. The Contractor will take such action with respect to any subcontract or procurement as the Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as result of such direction, the Contractor may request the State to enter into such litigation to protect the interests of the State, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

**EXHIBIT E  
TO CONTRACT AGREEMENT**

**STANDARD FEDERAL EQUAL OPPORTUNITY  
CONSTRUCTION CONTRACT SPECIFICATIONS  
(EXECUTIVE ORDER 11246) (43 CFR 14895)  
Not Applicable for this Contract.**

**EXHIBIT F  
TO CONTRACT AGREEMENT**

**CERTIFICATION OF SPONSOR  
DRUG-FREE WORKPLACE  
(Bidder to sign and return)**

I hereby certify that I am a principal and duly authorized representative of \_\_\_\_\_, (“Contractor”), whose address is \_\_\_\_\_, \_\_\_\_\_, and I further certify that:

- (1) The provisions of Section 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated, relating to the “Drug-Free Workplace Act” have been complied with in full; and
- (2) A drug-free workplace will be provided for Contractor’s employees during the performance of the Agreement; and
- (3) Each Subcontractor hired by Contractor shall be required to ensure that the subcontractor’s employees are provided a drug-free workplace. Contractor shall secure from that subcontractor the following written certification: “As part of the subcontracting agreement with Contractor, \_\_\_\_\_ certifies to Contractor that a drug-free workplace will be provided for the Subcontractor’s employees during the performance of this Agreement pursuant to paragraph (7) of subsection (b) of the Official Code of Georgia Annotated, Section 50-24-3”; and
- (4) The undersigned will not engage in unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana during the performance of the Agreement.

**CONTRACTOR:**

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT G  
TO CONTRACT AGREEMENT**

**DBE REQUIREMENTS**  
**Not Applicable to this project.**

**EXHIBIT H  
TO CONTRACT AGREEMENT**

**CONTRACTOR  
CERTIFICATION REGARDING DEBARMENT, SUSPENSION,  
AND OTHER RESPONSIBILITY MATTERS  
AND INSTRUCTIONS  
Not Applicable for this Contract**

**EXHIBIT I  
TO CONTRACT AGREEMENT**

**LOWER TIER  
CERTIFICATION REGARDING DEBARMENT, SUSPENSION,  
AND OTHER RESPONSIBILITY MATTERS  
AND INSTRUCTIONS  
Not Applicable for this Contract.**

**EXHIBIT J  
TO CONTRACT AGREEMENT**

**CERTIFICATION OF CONTRACTOR  
GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT**

I hereby certify that I am a principal and duly authorized representative of \_\_\_\_\_, ("Contractor"), whose address is \_\_\_\_\_, \_\_\_\_\_.

Contractor hereby agrees to comply with all applicable provisions and requirements of the Georgia Security and Immigration Compliance Act of 2006 (the "Act"), as codified in O.C.G.A. Sections 13-10-90 and 13-10-91 and regulated in Chapter 300-10-1 of the Rules and Regulations of the State of Georgia, "Public Employers, Their Contractors and Subcontractors Required to Verify New Employee Work Eligibility Through a Federal Work Authorization Program," accessed at <http://www.dol.state.ga.us>, as further set forth below.

Contractor agrees to verify the work eligibility of all of newly hired employees through the U.S. Department of Homeland Security's *Employment Eligibility Verification (EEV) / Basic Pilot Program*, accessed through the Internet at <https://www.vis-dhs.com/EmployerRegistration>, in accordance with the provisions and timeline found in O.C.G.A. 13-10-91 and Rule 300-10-1-.02 of the Rules and Regulations of the State of Georgia. As of July 1, 2007, the verification requirement applies to contractors and subcontractors with five-hundred (500) or more employees.

Contractor understands that the contractor and subcontractor requirements of the Act apply to contracts for, or in connection with, the physical performance of services within the State of Georgia.

Contractor understands that the following contract compliance dates set forth in the Act apply to the Contract Agreement, pursuant to O.C.G.A. 13-10-91:

On or after July 1, 2007, to public employers, contractors, or subcontractors of 500 or more employees;

On or after July 1, 2008, to public employers, contractors, or subcontractors of 100 or more employees; and

On or after July 1, 2009, to all other public employers, their contractors, and subcontractors.

To document the date on which the Act is applicable to Contractor, and to document Contractor's compliance with the Act, the undersigned agrees to initial one of the three (3) lines below indicating the employee number category applicable to Contractor, and to submit the indicated affidavit with the Contract Agreement if the Contractor has 500 or more employees.

Contractor has:

- \_\_\_\_\_ 500 or more employees [Contractor must register with the *Employment/Eligibility Verification/Basic Pilot Program* and begin work eligibility verification on July 1, 2007];
- \_\_\_\_\_ 100-499 employees [Contractor must register with the *Employment Eligibility Verification/Basic Pilot Program* and begin work eligibility verification by July 1, 2008]; or
- \_\_\_\_\_ 99 or fewer employees [Contractor must begin work eligibility verification by July 1, 2009].

Contractor further agrees to require O.C.G.A. Sections 13-10-90 and 13-10-91 compliance in all written agreements with any subcontractor employed by Contractor to provide services connected with the Contract Agreement, as required pursuant to O.C.G.A. 13-10-91.

Contractor agrees to obtain from any subcontractor that is employed by Contractor to provide services connected with the Contract Agreement, the subcontractor's indication of the employee number category applicable to the subcontractor.

Contractor agrees to secure from any subcontractor engaged to perform services under this Contract an executed "Subcontractor Affidavit," as required pursuant to O.C.G.A. 13-10-91 and Rule 300-10-1-.08 of the Rules and Regulations of the State of Georgia, which rule can be accessed at <http://www.dol.state.ga.us>.

Contractor agrees to maintain all records of the subcontractor's compliance with O.C.G.A. Sections 13-10-90 and 13-10-91 and Chapter 300-10-1 of the Rules and Regulations of the State of Georgia.

CONTRACTOR:

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Title: \_\_\_\_\_

**EXHIBIT K**  
**TO CONTRACT AGREEMENT**  
**INSURANCE REQUIREMENTS**

Within 10 days of Notice of Award, and at all times that this Contract is in force, the Contractor shall obtain, maintain and furnish the City Certificates of Insurance from licensed companies doing business in the State of Georgia with an A.M. Best Rating A-10 or higher and acceptable to the City covering:

1. Workers' Compensation & Employer's Liability Insurance. Workers' Compensation Insurance in compliance with the applicable Workers' Compensation Act(s) of the state(s) wherein the work is to be performed or where jurisdiction could apply in amounts required by statutes. Employer's Liability Insurance, with limits of liability of not less than \$1,000,000 per accident for bodily injury or disease.
2. Commercial General Liability Insurance, including contractual liability insurance, product and completed operations, personal and advertising injury, and any other type of liability for which this Contract applies with limits of liability of not less than \$1,000,000 each occurrence / \$2,000,000 policy aggregate for personal injury, bodily injury, and property damage. Commercial General Liability Insurance shall be written on an "occurrence" form.
3. Automobile Liability Insurance with limits of liability of not less than \$1,000,000 per accident for bodily injury and property damage if automobiles are to be used in the delivery of or in the completion of services and work or driven onto the City's property. Insurance shall include all owned, non-owned and hired vehicle liability.
4. Umbrella Insurance with limits of liability excess of Employer's Liability Insurance, Commercial General Liability Insurance and Automobile Liability Insurance in the amount of not less than \$3,000,000.
5. Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) with limits not less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.
6. Professional (Errors and Omissions) Insurance- For Professional Services and for all Design/Build Projects with limits of liability of not less than \$3,000,000 per occurrence or claim / \$3,000,000 policy aggregate. Such policy shall also include coverage for losses arising from the breach of information security or cyber liability (including Errors & Omissions, Security and Privacy Liability and Media Liability), whether combined with the Professional Liability policy or placed as a separate policy, but carrying the same limits of liability. Such coverage shall insure damage, injury and loss caused by error, omission or negligent acts, including all prior acts without limitation, related to the professional services to be provided under this Contract. The policy shall be amended to include independent contractors providing professional services on behalf of or at the direction of the Contractor. The definition of Contractual Liability shall be amended to state that liability under a contract of professional services is covered. Further, coverage shall be afforded for fraudulent acts, misappropriation of trade secrets, internet professional services, computer attacks, personal injury, regulatory actions, wrongful acts, contractual liability, privacy policy, and insured versus insured. The Contractor shall ensure that coverage under this policy continues for a period of thirty-six (36) months after completion of services.
7. Fidelity Bond (Employee Dishonesty) in the sum of not less than \$50,000.

All such insurance shall remain in effect until final payment is made and the Project is accepted by the City. If the Contractor receives notice of non-renewal or material adverse change of any of the

required coverages, the Contractor shall promptly advise the City in writing. Failure of the Contractor to promptly notify the City on non-renewal or material adverse change of any of the required coverages terminates the Agreement as of the date that the Contractor should have given notification to the City. The insurance policies shall contain or be endorsed to contain, the following provisions:

- (a) A provision that coverage afforded under such policies shall not expire, be canceled or altered without at least thirty (30) days prior written notice to the City.
- (b) Workers' Compensation and Employer's Liability and Property insurance policies shall contain a waiver of subrogation in favor of the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers.
- (c) Commercial General Liability, Automobile Liability Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) insurance policies shall include an endorsement making the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers Additional Insureds under such policies.

A copy of these endorsements shall be provided to the City.

Certificates of Insurance showing that such coverage is in force shall be filed under this Contract by the Contractor to the City.

The obligations for the Contractor to procure and maintain insurance shall not be construed to waive or restrict other obligations and it is understood that insurance in no way limits liability of the Contractor whether or not same is covered by insurance.

Certificate Holder should read: The City of Sandy Springs, 7840 Roswell Road, Building-500, Sandy Springs, Georgia 30350.

**EXHIBIT L**  
**SPECIAL PROVISIONS**

**SECTION 01 780**  
**CONTRACT CLOSEOUT**

**PART 1 - GENERAL**

**1.1 SUBMITTALS**

- A. Quality Control Submittals: Written procedures for maintaining and markup of Record Documents.
- B. Contract Closeout Submittals: Submit prior to application for Final Payment:
  - 1. Record Documents
  - 2. Approved Shop Drawings and Samples
  - 3. Warranties
- C. By submittal of his bid, Contractor acknowledges that he fully understands the full scope of demolition and removal necessary to complete new construction.

End of Section

## **SECTION 01 784 WARRANTEES**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturers' standard warranties on products and special warranties.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Divisions 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.
  - 2. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
- C. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.
- D. All work and products shall be warrantied for a minimum of one year from the date of substantial completion. Additional warranties for products and workmanship are as described in the applicable specification sections.

#### **1.3 DEFINITIONS**

- A. Contractor's Warranty: Contractor shall provide a warranty on the Project that warrants that all labor and materials furnished and work performed are in accordance with the Contract Documents and will be free from defects due to defective materials and/or workmanship for a period of one year from the Date of Substantial Completion. Warranty shall be provided on the form provided in this Specification Section.
- B. Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

- C. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

#### 1.4 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding; reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty.
- C. Replacement Cost: Upon determination that work covered by a warranty has failed, replace or rebuild the work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the Owner has benefited from use of the work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.
  - 1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- E. Where the Contract Documents require a special warranty, or similar commitment on the work or part of the work, the Owner reserves the right to refuse to accept the work, until the Contractor presents evidence that entities required to countersign such commitments are willing to do so.

#### 1.5 SUBMITTALS

- A. Submit written warranties to the Owner effective on the date certified for Substantial Completion. If the Engineer's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Owner.
- B. When the Contract Documents require the Contractor, or the Contractor and a subcontractor, supplier or manufacturer to execute a special warranty, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner, for approval prior to final execution. Refer to Specifications Divisions 2 through 16 for specific

Contract requirements and particular requirements for submitting special warranties.

- C. Form of Submittal: Compile two (2) copies of each required warranty properly executed by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- D. Bind warranties and bonds in heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
  - 1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address, and telephone number of the installer.
  - 2. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project title or name, and name of the Contractor.
  - 3. Provide additional copies of each required warranty, as necessary, for inclusion in each required Operations and Maintenance Manual.

## **PART 2 - PRODUCTS – N/A**

## **PART 3 - EXECUTION**

### **3.1 LIST OF WARRANTIES**

- A. Schedule: Provide warranties on products and installations as specified in all applicable Sections.

### **3.2 CONTRACTOR'S WARRANTY**

- A. The format of submission of the Contractor's Warranty is included on the subsequent page in this Specification Section.

### CONTRACTOR WARRANTY FORM

PROJECT: \_\_\_\_\_

LOCATION: \_\_\_\_\_

OWNER: \_\_\_\_\_

We, \_\_\_\_\_,

Contractor: \_\_\_\_\_

*(Contractor's Name)*

for the above referenced project, do hereby warrant that all labor and materials furnished and work performed are in accordance with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials and/or workmanship for a period of one year from the Date of Substantial Completion. This Warranty commences on:

\_\_\_\_\_  
*(Date of Substantial Completion)*

and expires on:

\_\_\_\_\_  
*(One Year from Commencement Date)*

Should any defect develop during the warranty period due to improper materials, workmanship or arrangement; the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the Owner.

The Owner will give the Contractor written notice of defective work. Should Contractor fail to correct defective work within sixty (60) days after receiving notice, the Owner may at its option, correct defects and charge Contractor costs for such correction. Contractor agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work that has been abused or neglected by the Owner or that was installed by another contractor.

For: \_\_\_\_\_  
*(Company Name)*

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **SECTION 02 005 GEOTECHNICAL REPORTS**

### **PART 1 - GENERAL**

#### **1.1 SCOPE**

##### **A. SUMMARY**

1. Soils Investigation Data: Soil and subsurface investigations performed and prepared by Ahlberg Engineering, Inc. Project No. 01-125030, titled “Geotechnical Exploration for the Proposed Lost Corner Park, Sandy Springs, Georgia dated January 7, 2013.
2. A Copy of this report is bound herein in this Project Manual and is for reference only.

##### **B. SOILS INVESTIGATION DATA**

1. Soils investigation data are available for information and convenience of Bidders, and is not warranted to indicate actual conditions.
2. Owner and Architect do not assume responsibility for variations in kind, depth, quantity and condition of soils; they disclaim responsibility for accuracy, true location, and extent of soils investigation that has been prepared by others; and they further disclaim responsibility for interpretation of that data by Bidders as in projecting soil bearing values, rock profiles, soil stability, and presence, level, and extent of underground water.
3. Soils investigation reports and data are included for reference only.

#### **1.2 BIDDER INVESTIGATION**

##### **A. Bidder shall visit site and acquaint himself with site conditions.**

1. Bidder may, at his own expense and prior to bidding, make any soil surveys and investigations he considers necessary.
2. Obtain authorization of Owner, through Architect, prior to start of borings or subsurface investigations.

### **PART 2 - PRODUCTS - Not Used**

### **PART 3 - EXECUTION - Not Used**

End of Section

## **SECTION 02 050 DEMOLITION**

### **PART 1 - GENERAL**

#### **1.1 SCOPE**

- A. Work described in this section includes demolition and removal of existing built site construction, utilities, utility appliances, soils, plants, appurtenances and all incidental items necessary to provide a condition suitable to construct the full scope of improvements illustrated and/or implied on the Drawings for new construction.
- B. The Scope of Demolition includes all demolition required to build the entirety of new construction illustrated or implied on Drawings. Ascertain the entire scope of demolition by whatever means necessary and include the cost for same in Contract Sum.
- C. By submittal of his bid, Contractor acknowledges that he fully understands the full scope of demolition and removal necessary to complete new construction.

#### **1.2 PROJECT CONDITIONS**

- A. Traffic
  - 1. Conduct Demolition operations and removal of debris to ensure minimum interference with roads, streets, walks and other adjacent occupied or used facilities.
  - 2. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the governing authorities and Owner.
  - 3. Provide alternate routes around closed or obstructed vehicular or pedestrian traffic ways as required.
- B. Use of explosives for demolition operations will not be permitted without written permission by the Owner.
- C. Damages caused by Demolition operations to any items identified or implied as to remain, will be promptly repaired at no additional cost to Owner.
- D. Costs related to removal, relocation, replacement and/or rerouting of any and all existing utilities or other built, stored, stockpiled items of any kind, surface or subsurface is the responsibility of the Contractor and will be included in the Contract Sum.
- E. Site shall be rendered obstruction free whether obstructions (utility poles, guy wires, etc.) are noted on Drawings or not.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS TO BE REMOVED**

- A. Materials to be demolished shall be treated as "waste" and disposed of by Contractor. In addition:
  - 1. Burning of waste on site shall not be permitted.
  - 2. Waste materials shall become the property of Contractor and shall be promptly removed from site.
  - 3. Storage or sale of salvageable items on site shall not be permitted.
  - 4. Do not store waste in planted areas or any area that can be damaged by storage operations.

## **PART 3 - EXECUTION**

### **3.1 EXTERIOR DEMOLITION**

- A. Structures
  - 1. Structures indicated to be removed shall be moved off Owner's property or demolished with debris removed from site.
  - 2. Owner assumes no responsibility for actual condition of existing structures.
- B. Remove concrete, plants, debris, soil and other work as specifically indicated.
- C. Voids below grade caused by demolition of structures or below-grade construction shall be filled with topsoil and compacted to prevent future settling.
- D. Utilities
  - 1. Disconnect and seal off utilities serving structures to be demolished prior to start of demolition.
  - 2. Utilities shall be disconnected below existing grade level by representatives of public utility being disconnected.
  - 3. Do not interrupt utility service to existing adjacent occupied facilities except as required and approved by the public utility company and Owner.

### **3.2 PROTECTION**

- A. Protect and prevent damage to existing construction to remain.
- B. Devise and implement a detailed work plan to avoid contact with, or damage to, structures directly adjacent to or below the work areas.

End of Section

## **SECTION 02 110 SITE PREPARATION**

### **PART 1 - GENERAL**

#### **1.01 SCOPE**

- A. Work described in this section includes protection of all items contained on the Drawings and protection of tree roots, natural vegetative areas, and paved areas that are to remain after the construction work is completed.
- B. Under penalty or fine, clearing and equipment movement shall be limited to areas designated on the Drawings and shall not disturb the existing terrain or any areas described above outside of the work areas.
- C. Debris from clearing and grading operations (trees, stumps, etc.) shall be removed from site, unless specifically directed otherwise by Owner.

#### **1.02 PROJECT CONDITIONS**

- A. Verify existing grades and curb elevations prior to beginning site preparation. If existing grades are at variance with drawings, notify Architect and receive instructions prior to proceeding.
- B. Protection:
  - 1. Protect bench marks and monuments; if disturbed or destroyed, replace in original position at no expense to the Owner.
  - 2. Protect areas outside limits of construction from encroachment by construction personnel or equipment regardless of property ownership.
  - 3. Protect tree save and vegetative areas from unnecessary encroachment by construction personnel or equipment.
  - 4. Protect any wetlands areas, stream buffers and springs from encroachment by construction personnel or equipment.
  - 5. Protect any septic system and drain field area(s) before and after construction from unnecessary encroachment by construction personnel or equipment.
- C. Utilities:
  - 1. Existing utilities are indicated on the drawings at approximate locations and reflect general observations from ground surface. Contractor shall field verify exact location of all utilities prior to beginning site preparation at no expense to the Owner.
  - 2. Identify and protect all utilities for the duration of the project.
- D. Fires:
  - 1. Fire for burning debris is not allowed on project site.

### **PART 2 - EXECUTION**

## 2.01 PROTECTION

- A. Preserve and maintain existing vegetation and trees outside new construction areas and specific vegetation and other items indicated on the drawings or by flagging at project site.
- B. Construct wooden post and orange safety fencing barricades, minimum 4'-0" high around individual items and group of items designated on the drawings to be protected.
- C. Protect tree root systems from damage due to deleterious materials caused by runoff or spillage during mixing, use or discarding of construction materials or drainage from stored materials. Protect root systems from compaction, flooding, erosion or excessive wetting.
- D. Store no construction materials, debris or excavated material within tree drip line. No vehicular traffic or parking is allowed within tree drip line.

## 2.02 PROTECTION OF EXISTING WORK

- A. Protect all existing site work from damage. If existing work is damaged, repair at no additional cost to Owner as required to bring work back to condition as at start of construction activities.

End of Section

## **SECTION 02 200 EARTHWORK**

### **PART 1 - GENERAL**

#### **1.01 SCOPE**

- A. Do not commence excavation or filling operations until all Drawings, Specifications or other relevant documentation at the Owner's offices or the Architect's offices have been reviewed and Architect and the Owner's Construction Coordinator have been notified of same.
- B. Notify free underground utility locator service at 1-800-282-7411 before any excavations are begun.
- B. Work includes but is not limited to:
  - 1. Clearing and Grubbing. Clearing and Earthwork equipment movement shall be limited to areas designated on the drawings. Do not disturb the existing terrain or existing vegetation outside the work area. All debris from Clearing and/or Earthwork operations (cleared vegetative matter, trees, root systems, remnant chipped material, stumps, etc.) shall be removed from the site, unless specifically directed by the Owner. At the Owner's sole discretion finely chipped vegetative matter may be utilized as mulch for slope protection.
  - 2. Cutting, filling and backfilling.
  - 3. Rough and Finish Grading of site to create surfaces on the Project site as illustrated on the Drawings.
  - 4. Topsoil stockpiling, excavation, redistribution and/or importation for respreading.
  - 5. Furnish, place and compact any additional material necessary to bring existing grades to new grades.
  - 6. Settlement Monitoring.
  - 7. Engineering and execution of shoring and bracing of any closely adjacent buildings and structures.
  - 8. Engineering and Shop Drawings for alternate Earthwork schemes of any nature.

#### **1.02 PROJECT CONDITIONS**

- A. The Design Concept includes preservation of existing terrain, trees and existing vegetation in close proximity to the proposed Library and other site improvements. Execute great care in limiting Earthwork operations to minimize impact to natural site features.
- B. Visit the site and become thoroughly familiar with all existing condition prior to formulating bid.
- C. Subsurface Soil Data:

1. Subsurface investigations have been made at the project site and the results are included in these Contract Documents, Section 02 005, Geotechnical Reports and any supplemental thereto.
  2. The information was obtained for use in preparing the subsurface, water infiltration and earthwork design, however the Contractor must draw his own conclusions there from.
  3. No responsibility is assumed by the Engineer, Architect or Owner for subsoil quality or conditions other than at the locations, and at the time the exploration was made.
  4. No claim for extra compensation or for extension of time will be allowed on account of subsurface conditions inconsistent with the data shown, except as provided elsewhere herein.
- D. Survey and establish all existing grades and lay out grade stakes for structures and appurtenances. If existing grades are at variance with drawings, notify Architect and receive instructions prior to proceeding. The General Contractor shall be fully responsible for conditions resulting from his failure to do so. Utilize a Registered Land Surveyor currently registered to practice land surveying in the State of Georgia.
- E. The Contractor shall, upon becoming aware of subsurface or latent physically changed conditions differing from those disclosed by the subsurface investigation, promptly notify the Owner verbally to permit verification of the conditions, and in writing, regarding the nature and extent of the differing conditions. No claim by the Contractor for any conditions differing from those anticipated in the Drawings and Specifications and disclosed by the subsurface investigation shall be allowed, unless the Contractor has so notified the Owner, verbally and in writing, as required above, of such changed conditions.
- F. Unsuitable materials, including all forms of rock, debris, organic materials and poor soils, encountered may be redistributed to other areas of the site not to be used in a structural capacity rather than being hauled off site if and only if approved in writing prior to any on-site distribution as a deductive change order; and at the Owner's sole discretion.
- G. The Contractor is solely responsible for all earth quantities and to render the finished grade elevations of the Project as indicated on the Drawings. Any exportation (i.e. "haul-off") of "excess" earth; or importation ( i.e. "haul-in") of suitable earth shall be included in the Contract Sum unless provided for otherwise in this Specification or as otherwise directed by Owner's Representative.

H. Protection.

1. Survey, establish and protect bench marks and monuments. If disturbed or destroyed, replace in original position by a Georgia Registered Land Surveyor at no additional cost to the Owner.
  2. Protect areas outside limits of construction from encroachment by construction personnel or equipment regardless of property ownership. Contractor shall erect flagging at limits of construction. Access shall be by specific written permission or easement only.
  3. Construct 4'-0" high perforated orange vinyl fencing around individual or groups of trees and shrubs designated to be preserved on the Drawings. Barricades shall be located at the drip-line of trees. Protect tree root systems from damage due to construction materials, compaction and erosion.
  4. No Clearing or any form of construction or other disturbance (including materials storage), shall be conducted outside the approximate limits of construction or inside the limits of Tree Save Areas illustrated on the drawings without express written consent of the Owner. Existing trees and terrain outside construction limits shall not be disturbed.
  5. Have all utilities marked and verify horizontal and vertical location of all utilities. Contact the Utility Protection Center at 1-800-282-7411 not less than three (3) working days prior to Earthwork operations. Protect existing facilities, utilities and adjacent property. Prevent ponding or washing of water on site and over adjacent property. Erect all erosion and sediment control silt fences called for on the Drawings.
  6. Provide necessary shoring, sheeting and bracing for the protection of work and safety of personnel. Backfill loads shall not be imposed on walls and structural systems until those systems are completely developed and at design capacity.
  7. Protect all downstream properties from soil erosion. Comply with all erosion and sediment control measures specified elsewhere and required by applicable codes and ordinances. Protect finished paved, grassed and treed areas from construction debris and dirt.
  8. Provide traffic protection by means of suitable signs, barricades and lights.
  9. Burning of debris onsite will not be permitted.
- I. Contractor must provide dewatering and drainage as required to accomplish the work required this section. No excavation may proceed until suitable dewatering has been provided. There shall be no areas of ponding water. Submit dewatering procedures to Architect for review.
- J. Contractor must comply with rules and regulations governing respective utilities.
- K. Contractor is solely responsible for protection of downstream properties from encroachment or damage from erosion, sediment or pollutants.

- L. All expenses related to the removal, relocation , replacement and/or rerouting of any and all existing utilities or other built, stored, stockpiled items of any kind, surface or subsurface is the responsibility of the Contractor and will be included in the Contract Sum.

### 1.03 QUALITY CRITERIA

- A. All work shall be performed in accordance with applicable codes and ordinances and with requirements of authorities having jurisdiction.
  - 1. All work under this Section shall conform fully to applicable OSHA rules and regulations.
  - 2. All work under this Section shall conform to the latest edition of the Sandy Springs Development Regulations.
  - 3. All work under this Section will be conducted in such a manner that all goals, criteria and standards are conformed to the NPDES-GAR Permit 100001 as administered by the Georgia Environmental Protection Division.
- B. Layout work shall be done by a Georgia Registered Engineer or Georgia Registered Land Surveyor experienced in reading architectural and engineering drawings, measuring tapes, and skilled in the use of surveying equipment.
- C. Earthwork monitoring and testing shall be performed by a Geotechnical Engineer, selected and paid for by the Owner.
- D. Excavation, backfilling and compaction shall comply with the following Reference Standard Designations by the American Society for Testing Materials (ASTM), or as otherwise noted on the drawings or in the Geotechnical Report.
  - 1. ASTM C136-76 - Sieve or Screen Analysis of Fine and Coarse Aggregates
  - 2. ASTM D1556-64 (1974) - Density of Soil in Place by the Sand-Cone Method
  - 3. ASTM D698 - Standard Proctor Compaction Test
  - 4. ASTM D2167 (1972) Density of Soil in Place by the Rubber Balloon method
  - 5. ASTM D2487-69 (1975) - Classification of Soils for Engineering Purposes
  - 6. ASTM D2922-78 - Density of Soil and Soil Aggregate in Place by Nuclear Methods
  - 7. ASTM D2937-71 - Density of the Soil in Place by the Drive- Cylinder Method

### 1.04 NOTIFICATION

- A. Notify Architect and Geotechnical Engineer 24 hours prior to commencing any Earthwork operations.
- B. Notify all Utilities Companies in ample time for necessary measures to be taken to prevent interruption of service when utility lines which are to be removed are encountered.

- C. Contact the Utility Protection Center at 1-800-282-7411 not less than three (3) working days prior to any Earthwork operations.

#### 1.05 SUBMITTALS

- A. Submit detailed Shop Drawings and schematic diagrams as necessary to graphically describe all Shoring and Bracing procedures. Include calculations and schedules. Illustrate sequencing of all Shoring and Bracing.
- B. Submit a detailed time schedule of all Earthwork operations.
- C. In the event that the Contractor contemplates deviation from the earthwork design concept for any reason, submit detailed shop drawings which clearly illustrate the intent and scope of said deviation for review prior to proceeding with same.

### **PART 2 - PRODUCTS**

#### 2.01 TOPSOIL

- A. Topsoil shall consist of local, fertile, friable, natural soil of loamy character, free of clay lumps, stones in excess of 3" in greatest dimension, typical of Project locality, and containing no chemicals harmful to plant growth.

#### 2.02 UNSUITABLE SOIL

- A. Unsuitable soil materials shall consist of soil materials not capable of being compacted to density required; rock material larger than 3", debris and organic material including muck, which is a wet organic material which cannot support a light crawler tractor and requires removal by power shovels or draglines; or material otherwise identified and designated as unsuitable by the Geotechnical Engineer.
- B. Soil material which is too wet to permit the specified compaction but is still suitable to be used in a structural capacity (once dried) based on the recommendations of the Geotechnical Engineer, shall be spread and permitted to dry in an area to be designated by the Architect. Contractor shall assist drying by disking, harrowing or pulverizing until the soil moisture content is reduced to the specified value. Only excavation of soils, which is wet due to concealed condition, including, but not limited to underground springs, high water table and leaking pipes, shall be addressed as a potential additive change order. Suitable materials which are wet due to precipitation as determined by the Owner's Geotechnical Engineer shall be dried and reused at no additional cost to the Owner.

### 2.03 FILL

- A. Satisfactory fill material shall consist of local, clean, non-active, organic free subsoil, free from debris, roots, topsoil and frozen material. Maximum size of rock fragments shall be equal to or less than 3". In areas of massive fills or disposal pits, the Geotechnical Engineer shall determine the maximum size of rock. Materials classified as SM, SP, ML, SC or CL are suitable for structural fill. Generally, residual soils in the area are suitable for reuse as structural fill. Partially weathered rock or rock may be used as fill as provided for in the referenced Geotechnical Report. The soil should exhibit a plasticity index of less than 30 and a dry unit weight of at least 90 pcf unless more stringent requirements are given in the Geotechnical Report, in which case they will govern. Residual material to be used as fill material shall be tested and approved by Geotechnical Engineer for degree of compaction specified for its intended use.
- B. For fill soils to be imported, the Contractor is responsible to provide samples of same for laboratory testing by the Geotechnical Engineer to determine their standard proctor. Additionally, the Contractor shall identify the location of any "borrow pits" so that the Geotechnical Engineer may inspect same to determine suitability of the general soils which the Contractor intends to import to the Project site.

### 2.04 GRAVEL

- A. Gravel fill shall consist of crushed stone or gravel graded so 100% passes the 1-1/2" sieve meeting ASTM C33.

### 2.05 RIP RAP

- A. All stone for Rip Rap shall be sound, durable pieces meeting the quality requirements of Section 805 of the State of Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges, 1993 or latest Edition.
- B. Stone for rip rap shall be clean and essentially free of rock dust and fines. The material shall be processed such that the largest pieces have a volume of not more than 2 cubic feet and not more than 10% of the total weight of rip rap shall consist of spalls passing a 5-inch sieve.

### 2.06 GRADED AGGREGATE BASE

- A. Graded aggregate base shall meet the quality requirements of Section 815 of the State of Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges, 1993 or latest Edition.

- B. The crushed stone shall consist of sound durable particles of crusher run rock, 100% passing a two inch sieve, 97-100% passing a 1 inch sieve, 60-95% passing a 3/4 inch sieve, 25-50% passing a No. 10 sieve, 10-35% passing a No. 60 sieve, and not more than 7-15% passing a No. 200 sieve and free from unsuitable materials.

## 2.07 GRANULAR BEDDING

- A. Granular bedding and backfill material shall consist of a granular soil, sand, chert, crushed stone or mixture of these, all of which passes a 3/4 inch sieve, 80% passing a 3/8 inch sieve and not more than 12% passing a No. 200 sieve. Material shall be free of organic matter and debris.

## 2.08 CRUSHED STONE (CRUSHER RUN)

- A. Crushed stone shall consist of sound durable particles of crusher run rock, passing a two inch sieve and not more than seven percent passing a No. 200 sieve and free from unsuitable materials.

## 2.09 ROCK

- A. Rock consists of three types: Rippable Weathered Rock, Mass Rock and Trench Rock. Rippable Weathered Rock is considered part of the work, and shall be included in the Contract Sum. Payment for Mass Rock and Trench Rock removal shall be in accordance with change order procedures based on the unit costs provided in the Contract or a time and material basis as agreed to prior to commencing work. Rock quantities shall be qualified and quantified by the Geotechnical Engineer and verified by the Architect/Engineer.
  - 1. Rippable Weathered Rock is defined as residual material having a volume greater than one cubic yard that, in the opinion of the Geotechnical Engineer, can be effectively plowed, spaded, or removed with power driven excavating equipment having been first loosened with a track-mounted bulldozer equipped with a ripper shank.
  - 2. Mass Rock and Trench Rock are defined as residual material having a volume greater than one (1) cubic yard or more for mass excavation or one-half (1/2) cubic yard for trench or pit excavation that cannot be removed by rock excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, or blasting.
    - a. Mass Rock - Mass Excavation: Late-model, track-mounted bulldozer equipped with a single-tooth ripper shank; rated at not less than 230-hp flywheel power and developing a minimum of 53,000-lbf pryout force; measured according to SAEJ-732.
    - b. Trench Rock - Excavation of Trenches and Pits: Late-model, track-mounted hydraulic excavator; equipped with a 42-inch-wide, short-tip-

radius rock bucket; rated at not less than 120-hp flywheel power with bucket-curling force of not less than 26,000-lpf and stick-crown force of not less than 18,700 lbf; measured according to SAEJ-1179.

- B. Provide ground vibration monitoring and existing condition/crack survey (video and/or digital) of all nearby structures and/or adjacent properties prior to any blasting operations.

## **PART 3 - EXECUTION**

### **3.01 CLEARING**

- A. Clearing is the removal of all obstructions which interfere with the construction. These items include minor structures, trees and their complete root systems, brush, other vegetative material- in any condition (i.e. chipped, cut, wrenched, etc.) rubbish, fences and other such items except items indicated to be preserved on the Drawings.
- B. Set and maintain all Active or Passive Tree, Buffer or Vegetation Protection Fencing, and any Wetland or spring protection fencing prior to clearing operations.
- C. Obtain a copy of Sandy Springs Tree Preservation Standards which are hereby made a part of these Specifications; and follow all pertinent guidelines regarding Clearing and Grubbing operations at or near Tree Save Areas as illustrated on the Drawings.
- D. Clear only those areas in which construction or Earthwork operations are required. This will include all excavated, graded and filled areas. Protect all other areas from any damage as a result of clearing operations.
- E. Burning on site shall not be permitted.
- F. Remove all cleared material from the project site and legally dispose of.

### **3.02 GRUBBING**

- A. Grubbing is the removal of all roots and stumps from the ground larger than 3/4 inch in diameter.
- B. Unless otherwise directed, grub all cleared areas.
  - 1. In fill areas where subgrades for building, roads or paved areas are to be placed, grub to minimum depth of 12 inches below the finished subgrade.
  - 2. In all areas of excavation for structures, grub to the depth of the proposed excavation.
  - 3. In areas outside of subgrades where fill is to be placed, grub to the existing grade.

4. In areas to be grassed and/or landscaped without fill, grub to a minimum of 6 inches below the final grade.
- C. Remove all grubbed material from the project site and legally dispose of.

### 3.03 CLEAN UP

- A. Burning is not permitted.
- B. Remove all debris resulting from Clearing and Grubbing operations from the site and dispose of in compliance with all applicable laws and regulations. Do not place such debris on private property without written consent of the Owner of such property. Do not place debris or grubbed material on or around perimeter of site.

### 3.04 TOPSOIL STOCKPILING

- A. Strip topsoil to full depth encountered in areas indicated to be graded. Stockpiling may recur as required to complete all construction operations. Intermittent movement of Topsoil from one location of the Project site to another shall be included in the Contract Sum. No claim shall be considered for the movement of Topsoil.
- B. Prior to stockpiling topsoil, remove tree limbs and roots, rocks larger than 3" and deleterious materials. Removed materials shall become the property of the Contractor and hauled off the site.
- C. Where trees are indicated to remain, stop topsoil stripping at the Critical Root Zone (CRZ). Reference Sandy Springs Tree Preservation Standards for CRZ.
- D. Stockpile topsoil in manner to drain without ponding, and to avoid loss of material through erosion by wind or water.
- E. Do not export any topsoil off-site
- F. Re-distribute a minimum of 4" deep layer of topsoil fine graded to finish contour elevations shown in non-paved areas..

### 3.05 EXCESS, UNSUITABLE AND INSUFFICIENT MATERIALS

- A. Remove and legally dispose of excess and unsuitable materials from Project site unless directed otherwise by Architect. Unsuitable material may be placed on Owner's property if and only if approved in writing by the Architect prior to any on-site distribution as a deductive change order and then shall only be placed in non-structural fill areas.

- B. Provide satisfactory fill material in areas where existing materials are insufficient or unsuitable for earthwork operations.

### 3.06 EXCAVATION

- A. Excavate to lines and levels indicated. Provide space for installations and inspection. Cut excavations clean with level bottoms. Where changes in levels occur, provide vertical steps in horizontal runs.
- B. If soil conditions permit, cut footing trenches to exact size of footing and omit forms. Notify Architect if earth of doubtful bearing is encountered. If adequate bearing is not encountered within 8" of depth shown, excavations shall be carried deeper upon written authorization and paid for as additional work in accordance with Contract Conditions.
- C. If excavations are carried deeper than shown by error, additional depth shall be filled with concrete of class specified for footings at no additional cost to Owner.
- D. Protect excavations against cave-ins, ponding and freezing. When freezing can be anticipated prior to placing of concrete, protect excavations or delay carrying excavations to full depth until concrete can be placed.
- E. Maintain excavations free of surface water. Provide pumps if required to drain excavations. Provide and maintain temporary drainage ditches as required.
- F. Notify Architect when footing excavations are complete. Geotechnical Engineer will review excavations prior to placing reinforcement and concrete.
- G. The Contractor shall be fully responsible for all damage to any part of the site, building structures or other installations, caused by water.
- H. Concrete should be placed the same day earth excavation is made. If it is necessary for excavations to remain open overnight, provisions should be made to prevent collection of surface run-off in the excavation or install 3" thick, 1000 psi concrete veneer.
- I. Excavations of unsuitable materials:
  - 1. If rock is encountered, clear away earth and expose materials. Notify Architect and receive written instructions prior to excavations. Measure and estimate extent of rock to be excavated. The Geotechnical Engineer shall verify in writing whether the material shall be classified as rock and shall confirm the extent and quantity of rock to be excavated.

2. Only rock excavation done in accordance with Architect's instructions will be paid for by Owner as additional work in accordance with Contract Conditions.
3. Remove rock to a depth of 6" below proposed slabs and pavement, 24" outside proposed building walls, 6" below and 8" to each side of pipes in utility trenches, with minimum width of 36", and 12" below finished grade in areas to receive landscaping and seeding.
4. Perform blasting only after receiving written approval from Architect and notifying Owner's insurance company of intent. Engage skilled mechanics to perform blasting. Provide heavy mats to minimize concussion. Handle, store and use explosives in accordance with the "Manual of Accident Prevention in Construction of the Associated General Contractors of America, Inc.", latest edition, with amendments.
5. Notify residents within ½ mile radius of the site of intent to conduct blasting operations and furnish all monitoring of existing structures within ½ mile radius as part of the Unit Price for rock excavation established in the Bid form..

J. Utility Trenches:

1. Excavate trenches to a maximum width equal to pipe diameter plus 2'-0" for pipe 2'-6" diameter and smaller; 2'-6" plus pipe diameter for pipe exceeding 2'-6" diameter. Minimum excavation width shall be 36". Do not over-excavate. If specified trench widths are exceeded, Architect may require installation of stronger pipe or special installation procedures at no additional cost to Owner.
2. The bottom of trenches, when in rock, shall be excavated a minimum of 6" below required bottom of pipe, refilled with fill material free of rock larger than 3" in any dimension, and compacted to bedding level to provide uniform bearing and support along the length of each pipe section.
3. Pipe shall be carefully bedded in soil foundation. See paragraph 3.08.
4. Water line trenches shall be excavated to avoid high points requiring the installation of vacuum and relief valves below the frost line.
5. Cutting and removing existing pavements where required shall be done in neat lines.

K. Proofrolling::

1. After the site has been properly drained, and all organic surface soils have been removed, the site shall be inspected by a Geotechnical Engineer and proofrolled at that time. Proofrolling shall consist of several overlapping passes of heavily loaded 20-30 ton dump truck. The purposes of the proofrolling will be to detect any areas where soft or unstable soils are present, as well as to improve the density of the loose near-surface soils. Proofrolling shall be performed in the presence of the Geotechnical Engineer who can observe any areas where remedial action may be required. Any soft or yielding areas shall be thoroughly undercut and replaced with well-compacted structural fill 95% Standard Proctor with the top 12" compacted to 98% Standard Proctor Density or as specified by the Geotechnical Report. The groundwater level should be

maintained at a depth of at least 2 feet below the depth of vibratory rolling operations. This work should be anticipated. A minimum of four complete overlapping passes shall be made in each of two perpendicular directions.

### 3.07 EXCAVATION EMBANKMENT AND BRACING

- A. The Contractor shall accept full responsibility for all excavations. He shall protect all excavation embankments against collapse. Where possible, embankments over 5'-0" high shall be made at a slope not greater than 1-1/2 horizontal to 1 vertical; or where the soil is very sandy or wet, the slope should not be greater than 2 horizontal to 1 vertical. Steeper slopes than those suggested herein may be employed when the work is under the supervision of a Registered Professional Engineer responsible for the design engineering of all shoring and bracing techniques required to accomplish the work and shall be employed by the Contractor.
- B. Where it is not possible to provide a safe embankment slope, all banks shall be temporarily supported and maintained secure until permanent support has been provided.
- C. Where ditches or trenches are over 5'-0" deep cross bracing and shoring shall be provided to prevent collapse.
- D. The Contractor shall provide bracing systems designed by an Registered Engineer in the State of Georgia, experienced in such designs and acceptable to the Architect. The design drawings shall show the work and sequence in its entirety and be submitted to the Architect prior to commencing work.
- E. To prevent caving, or settlement of earth adjacent to excavations, and for the protection of persons as well as property, shoring, bracing and other similar work shall be provided and installed to meet the conditions in each particular case and shall be left in place until construction has reached a point where backfills behind walls or in ditches have been made and the need for shoring and bracing eliminated.

### 3.08 BEDDING

- A. Bedding shall conform to the following Specifications unless shown otherwise elsewhere in these documents.
  - 1. For ductile iron, cast iron or plastic (SDR) pipe for water main or sanitary sewer system refer to Sandy Springs standards.
  - 2. For corrugated metal pipe or plastic (PVC) pipe for drainage systems or roof leaders grade trench bottom to uniform slope to provide a firm, unyielding bearing surface along the entire length of the barrel of the pipe. Bed pipe in trenches on continuous soil foundation shaped to lowest one-fourth of pipe profile, unless shown otherwise in these documents. Continue backfilling with

suitable soil in 6" layers by hand, tamping material by hand operated tampers to a level 18" above top of pipe. Form depressions for hubs and similar joints only in size as required for making joint.

3. In areas of rock excavation, and where needed in other areas, provide crushed stone bedding for all pipes. Provide this bedding over the full width of the excavation to a minimum depth of 6" under the pipe.
4. Whenever the sub-grade is unstable or too soft to provide a satisfactory pipe foundation for any pipe, undercut the trench as necessary and backfill with crushed stone. Compact and bring the material to proper grade to create a firm, unyielding foundation.

### 3.09 TRENCH BACKFILLING

- A. Do not backfill over utility lines which have not passed required testing or inspections including:
  1. Geotechnical Engineer inspection of subgrade.
  2. Inspections, testing and regrading locations of subgrade utilities.
- B. Backfill all trenches and excavations immediately after the pipe are laid using suitable soils.
  1. If sufficient suitable excavated material is not available on site, provide sufficient and suitable borrow material for backfill. See Paragraph 2.3 of this Section.
  2. Backfill from 18 inches above the pipe to grade shall be as follows:
    - a. Trenches in areas not to be paved may be backfilled and compacted by methods of Contractor's choice. Compact backfill to 90% Standard Proctor Density. Refill the trench as often as required to maintain the design elevation at the proper grade.
    - b. Trenches in areas to be paved and in areas beneath proposed structures shall be backfilled with granular material. Compact backfill to 95% Standard Proctor Density with the top 12" compacted to 98% Standard Proctor Density or as specified by the Geotechnical Report. Compact backfill further, if necessary, either by leaving the backfilled trench open to traffic while maintaining the surface or by the use of compaction equipment as required. Refill settlement in trenches with material acceptable to the Geotechnical Engineer and continue such maintenance until pavement placement is authorized by the Owner's Representative.

### 3.10 FILLING

- A. Preparation of Surface to Receive Fill (Reference and follow the Geotechnical Engineer's recommendations in his report)
  1. Remove vegetation, top soil, debris, unsuitable soil materials, obstructions and deleterious materials from ground surface prior to placement of fill. Break up (and periodically cut benches into) sloped surfaces steeper than one vertical to four horizontal so that fill material will bond with existing surface. Surfaces to receive fill material shall be inspected and approved by Geotechnical Engineer.

2. When existing ground surface has density less than that specified for particular area classification, break up the ground surface, pulverize, moisturize soil to optimum moisture content, and compact to required depth and percentage of maximum density.
  3. Subgrade shall be proof-rolled with a 20 to 30 ton heavily loaded dump truck, scraper or similar rubber tired equipment in the presence of the Geotechnical Engineer and/or Owner's representative. Proof-rolling shall be performed in two mutually perpendicular directions, with at least two passes in each direction. Areas which exhibit signs of instability that cannot be stabilized with further compaction shall be undercut to a suitable grade and backfilled with structural fill.
- B. Benching should be made periodically; create an eight foot to ten foot (8'-10') wide bench for each two vertical foot (2 VF) of fill placed. Insure stable interface between old fill and newly placed fill.
- C. Place fill materials in layers not more than six inch (6") loose depth. Before compaction, moisten or aerate each layer to provide the optimum moisture content plus or minus 2%, or as specified in soils report. See paragraph 3.12 below for compaction requirements of fill. Do not place backfill or fill material on muddy, frozen surfaces or surfaces containing any frost or ice. Compaction shall be inspected by Geotechnical Engineer.
- D. No soil found on the site or transported to the site which is contaminated with material containing asbestos, PCB's, radon, gasoline, fuel oil or other fossil fuels shall be used for fill, backfill, or planting topsoil. Any contaminated soil found on the site shall be removed and disposed of in a manner approved by the appropriate regulatory agencies.

### 3.11 SETTLEMENT MONITORING

- A. Furnish all labor, materials and land surveying personnel to monitor in place fill for a period of not less than thirty (30) calendar days after the earth fill subgrade elevation has been achieved. Settlement monitoring to be in areas designated on the drawings.
- B Place No. 4 coated rebar painted international orange with yellow flagging fifty feet (50') on center four feet (4') uphill from the crests of all fill embankments or as otherwise directed by the Geotechnical Engineer. Protect rebar at the directed locations from disturbance until directed by the Geotechnical Engineer to remove same.

- C. Set a topographic bench mark a minimum of 200' from the fill area outside the limits of construction. Set and maintain “guard” stakes and flagging around the bench mark throughout the duration of the Monitoring period.
- D. Follow the following procedures for recording, documenting and forwarding settlement data:
  - 1. Survey and record an initial elevation (0 reading) by a Georgia Registered Surveyor to establish rod elevations to the nearest one-hundredth of a foot;
  - 2. Continue to survey and record rod elevations immediately after the placement of all engineered fill; three times a week for the first two weeks following completion, and weekly thereafter on the same day of the week until a cessation of primary settlement;
  - 3. Forward settlement data to the Architect who in turn will distribute data to the Owner, Engineer and Geotechnical Engineer for review;

### 3.12 GRADING AND FILLING AROUND TREES

- A. Obtain a copy of Sandy Springs Tree Preservation Standards which are hereby made a part of these Specifications; and follow all pertinent guidelines regarding Grading and Filling operations at or near Tree Save Areas as illustrated on the Drawings.
- B. Maintain existing grade within Critical Root Zone (CRZ) of trees unless otherwise indicated.
- C. Where existing grade is above new finish grade shown around trees, hand excavate within drip line to new grade. Cut exposed roots approximately 3" below elevation of new finish grade. Employ a tree surgeon to recommend procedures such as pruning of branches and stimulation of root growth. Provide subsequent maintenance during the contract period as recommended and long range maintenance procedures to be followed after completion of construction operations.
- D. Raising Grades
  - 1. Where existing grade is 4" or less below elevation of finish grade shown, provide fill using stockpiled topsoil. Use topsoil as specified. Place topsoil in single layer and do not compact.
  - 2. Where existing grade is more than 4" but less than 8" below elevation of finish grade shown, place a layer of drainage fill on existing grade prior to placing topsoil. Place fill against trunks of trees to an elevation of approximately 2" above finish grade and extending not less than 18" from tree trunk on all sides. For balance of area within drip line perimeter, place drainage fill to an elevation 4" below finish grade and complete fill with a 4" layer of topsoil. Do not compact stone or topsoil layers.

### 3.13 COMPACTION

- A. Perform compaction of soil materials for fills using mechanical soil compaction equipment for type and size materials to be compacted. Hand compact materials in areas inaccessible to machinery.
- B. Provide the percentages of specified compaction at the specified moisture content in the specified lifts as outlined in the Geotechnical Report. If no specification is given in said report, use the following as a minimum at 3% plus or minus of optimum moisture content placed in 6" lifts.
  - 1. Provide 95% maximum dry density with top 12" to 98% maximum dry density for fill under building slabs, extending beyond the building outlines a distance equal to twice the height of the fill beneath any edge of building. Fill should then slope not steeper than one vertical to two horizontal (2H:1V);
  - 2. Provide 95% maximum dry density with the top 12" to 98% maximum dry density for fill under asphaltic pavements;
  - 3. Provide 95% maximum dry density Standard Proctor and top 12" to 98% maximum dry density for fill under pervious pavers, concrete sidewalks, concrete steps, concrete ramps and trench backfill
  - 4. Provide 90% maximum dry density for all other non-paved fill material unless otherwise indicated.
- C. Where subgrade or soil layer must be moisture conditioned before compacting, apply water to surface of subgrade or soil layer. Scarify and air dry soil material that is too wet to permit compaction to specified density.
- D. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread where directed by Architect and permitted to dry. Assist drying by disking, harrowing or pulverizing, until moisture content is reduced to satisfactory value, as determined by moisture density relation tests. When accepted by the Geotechnical Engineer, soil material may be used in compacted backfill or fill.
- E. Remove unsuitable material at the site for the proposed structures and paved areas from the existing grade. No water shall be allowed to accumulate in the excavation or on the subgrade soils during construction. Soils which will be exposed during construction are very sensitive to disturbances and strength degradation in the presence of excess moisture. They are also frost susceptible. The amount of time natural subgrades are exposed to the elements must be minimized in order to prevent possible subgrade degradation. Work must be completed such that excavation, inspection, undercutting, backfill and/or concrete mud matting can be accomplished expeditiously in a given area.

- F. Foundations have been designed for bearing capacity of 3000 psf bearing. Contractor shall verify the bearing capacity prior to placing footings. If tests indicate less than assumed capacity, receive instructions from the Architect.

### 3.14 FINISH GRADING

- A. Finish grade disturbed areas, with a minimum 4" depth of topsoil, in smooth, uniformly leveled, crowned, or contoured slopes between all new elevation surface points to existing, undisturbed grade elevations.
- B. Grade areas adjacent to buildings for positive drainage to storm drainage structures and prevent ponding. Finish grades shall be within one tenth of a foot (0.1') of indicated elevations.
- C. The Drawings indicate the levels, slopes and contours of finished grade elevations for the entire site. Slight modifications as determined by the Architect may be required; the Contractor shall make these modifications without extra cost to Owner.
- D. Where compacted areas are disturbed by construction operations, scarify surface, reshape and compact to required density.
- E. Redistribute stockpiled topsoil to uniform depth over graded areas and other areas to receive landscaping or grassing, in a 4" minimum depth. In the event that stripped topsoil is not sufficient to render a 4" minimum depth, import clean topsoil sufficient to render a minimum 4" depth as part of the Contract Sum.
- F. Redistribute excess topsoil, subsoil from footing excavations, other soil matter and debris on approved areas of the Owner's property at no additional cost to the Owner.
- G. At completion of finish grading operation, entire site shall be ready for planting or grassing.
- H. Where finish grading meets or abuts curbs, walks or similar pavements, upstream grades shall be slightly higher than pavements to permit drainage and prevent ponding behind curbs or walks.
- I. Protect newly graded surfaces from traffic and erosion and keep free of debris. Where graded or compacted surfaces are damaged by subsequent operations, return to proper grade and state of compaction.

### 3.15 GRADE MAINTENANCE

- A. Contractor shall provide additional fill material, remove excess material, or redistribute materials as required, should grades be changed by erosion or other

causes during course of construction, without additional cost to Owner. Reference Job Condition of this Section.

### 3.16 FIELD QUALITY CONTROL

- A. Geotechnical Engineer shall be notified by the Contractor of the progress of work under this section on a continuing basis so that necessary field soil engineering and testing services may be provided during site preparation, excavation, fill placement and foundation phases of the Project. Do not proceed with additional portions of work until results of previous phases have been verified.
- B. Geotechnical Engineer will verify that all existing fill, topsoil, soils containing organic matter and all other undesirable materials are removed and only engineered fill is placed over suitable subgrade soils.
- C. If, during progress of work, tests indicate that compacted materials do not meet specified requirements, remove defective work, replace and retest at no cost to Owner.
- D. Ensure compacted fills are tested before proceeding with placement of surface materials.
- E. The Geotechnical Engineer will observe all “benching” operations as fill placement progresses to the existing slopes.
- F. Geotechnical Engineer will observe the foundation construction as directed by the Architect, and determine the adequacy of bearing surfaces prior to construction of foundations.
- G. Geotechnical Engineer will make all tests of backfill materials to determine their suitability for compaction, and will observe the placing of backfill as directed by the Architect.
- H. Geotechnical Engineer and the Architect shall have the power of rejection of materials, equipment or operating procedures of the backfilling operation. The Contractor shall replace, rework or correct work which does not meet the Specifications as directed by the Geotechnical Engineer and/or the Architect.
- I. The Contractor shall be responsible for notifying the Geotechnical Engineer at least 24 hours prior to the time when testing will be required.
- J. Additional tests on completed fill may be authorized by the Owner. If such tests indicate failure to meet the Specifications, the costs of these tests and subsequent

retests will be paid by the Contractor. Otherwise, the costs of these tests will be paid by the Owner.

- K. In-place density tests shall be performed by the Geotechnical Engineer according to the following requirements:
1. In the general building area, conduct one test for every 2,500 square feet for each two feet depth.
  2. At wall and trench backfill areas, conduct one test for every 50 lineal feet for each two feet depth.
  3. In all cases, a test is required within the top foot of fill.
  4. Sidewalks - One test for each two foot lift of each 5,000 sq. ft. of area.
  5. General areas fill - One test for each two foot lift of each 10,000 sq. ft. of area.

End of Section

## **SECTION 02 270**

### **EROSION, SEDIMENT AND POLLUTION CONTROL**

#### **PART 1 - GENERAL**

##### **1.02 SCOPE**

- A. Work described in this Section includes the containment of sediment transport, control of erosion and treatment of pollutants prior to, during and throughout all construction operations; establishment of permanent vegetative cover and continued maintenance of said measures in accordance with Part 3 Execution, Paragraph. 3.04 of this Section.
- B. Contractor is solely responsible for protection of downstream properties from encroachment or damage from soil erosion and/or the discharge of pollutants by water or air to any areas off the Project site.
- C. All control measures shown on the Drawings are to be considered the minimum required; additional control measures will be added if determined to be needed by any on-site inspections. Provide same as required.
- D. Contractor is the "Operator" who, along with Owner, is one of the Primary Permittees as defined in the most current edition of Georgia EPD NPDES, GAR 100001 Permit (the Permit). As such, Contractor is responsible for all on-site monitoring of Erosion, Sediment and Pollution Control measures, as well as other specific responsibilities of the Permit. All such responsibilities are hereby a part of Contractor's work.
- E. Discharge monitoring shall be the responsibility of Owner.
- F. Comply with all applicable criteria of the State of Georgia, EPD, NPDES GAR 100001 Permit which is hereby made a part of these Specifications by reference.

##### **1.02 SUBMITTALS**

- A. Schedule of Operations:
  - 1. Submit schedule of exact dates operations including program for erosion, sediment and pollution control measures, maintenance of all said measures including control facilities, structures and devices and vegetative practices.
  - 2. Show anticipated starting and completion dates for land-disturbing activities including excavation, filling and rough grading, finished grading, construction of temporary and permanent control measures, and disposition of temporary erosion sediment and pollution control measures.
- B. Submit a sample of erosion control blanket material such as "Bio-Mat 40, Semi-permanent woven bristle coir mat", or other approved equal for all disturbed areas of the site designated to receive erosion control matting.

- C. Submit a sample of the synthetic polymer such as “Siltstop” or other approved equal.

### 1.03 PROJECT CONDITIONS

- A. Furnish and install all control measures prior to or concurrent with any land disturbance activity.
- B. Contractor is responsible for initial provision and installation of all control measures and then the continued provision and installation of all measures throughout all construction operations and all sequences of construction operations.
- C. Schedule grading operations to allow permanent erosion control to take place in the same construction season.
- D. Avoid or minimize exposure of soils to winter weather.
- E. Maintain all controls until vegetative cover has been established.
- F. Construct and maintain temporary control measures until such time as permanent measures are effective in control of erosion, sediment and pollution from the site.
- G. Extent of measures shall be responsibility of Contractor.
- H. Stop all erosion, sediment or pollution from leaving the site and encroaching on downstream or surrounding properties.
- I. Temporary grassing shall be applied to all disturbed areas left idle for 72 hours per “Manual for Erosion and Sediment Control in Georgia”, latest edition published by the Georgia Soil and Water Conservation Committee."
- J. Contractor responsible for all quantities of all control measures regardless if shown on the Drawings.
- K. Extent of soil erosion control measures shown on the Drawings should be considered minimum.
- L. All expenses related to the removal, relocation, replacement and/or rerouting of any and all existing utilities or other built, stored, stockpiled items of any kind, surface or subsurface is the responsibility of the contractor and will be included in the Contract Sum.

### 1.04 QUALITY CRITERIA

- A. Procedures shall comply with "Manual for Erosion and Sediment Control in Georgia", latest edition published by the Georgia Soil and Water Conservation Committee."

- B. Contractor is required to keep a log book on site documenting his inspection of all control devices (minimum once/week and within 24 hrs of any storm event) and noting any corrections or modifications.
- C. Contractor, in conjunction with Owner, must also file a "Notice of Termination" when the site is finally stabilized and all storm water management systems have been constructed and have been proven to be functioning in accordance with the Design Concept(s).
- D. Reference the Drawings for any other procedural manuals, publications, permits or other field guidelines required for Contractor to obtain, understand and utilize in the performance of his Work. By reference of same, said materials are made a part of these Specifications.
- E. Reference the State of Georgia EPD NPDES - GAR 100001 Permit and comply with all Quality Control criteria therein as they apply to the "Operator" of the Primary Permittee.

## **PART 2 - PRODUCTS**

### **2.01 FILTER FABRIC**

- A. Filter fabric for silt fences shall be a 36" Georgia DOT approved pervious sheet of synthetic polymer filaments non-woven from continuous filaments with wire fence backing. Filter fabric shall be of type recommended by its manufacturer for the intended application. The filter fabric shall meet the following requirements:
  - 1. Minimum average thickness: 30 mil (by ASTM D1777).
  - 2. Air permeability: 250 to 550 C.F.M./Sq. Ft.
  - 3. Minimum grab strength: 110 lbs. (by ASTM D1682).

### **2.02 FILTER STONE**

- A. Aggregate filter shall conform to following gradations:

<u>Sieve Size</u>	<u>% by weight passing</u> <u>Square mesh sieve</u>
3"	100
3/4"	20 - 90
No. 4	0 - 20

### **2.03 STONE FOR EXIT/ENTRANCE PAD**

- A. Stone shall comply with ASTM D448 size #1 (1 1/2" to 3 1/2").

### **2.04 EROSION CONTROL BLANKET**

- A. All designated areas of disturbance and other areas as needed:
  - 1. Bio-Mat 40, Semi-permanent Woven Bristle Coir Mat, or approved equal.

## 2.05 SYNTHETIC POLYMERS

- A. The contractor for all newly disturbed, graded or exposed soil surfaces, shall apply 1.50 gals/acre of approved erosion control polymer.
- B. Erosion control polymer is a water soluble synthetic polyacrylamide polymer suitable to be applied to disturbed soil surfaces where the polymer will chemically bind to fine clay particles and prevent clay from going into solution, such as:
  - 1. APS 600 Series Silt Stop, as manufactured by Applied Polymer Systems, Woodstock, Georgia, Contact Steve Iwinski (678) 494-5998.
  - 2. GeoPolymer as manufactured by GeoStop.
  - 3. Soil Mulch Polymer as manufactured by SoilMulch.
  - 4. Approved equal.
- C. Polymer shall be applied utilizing a hydro seeder mix of appropriate seed, fertilizer, lime and mulch for the same acre or without seed/fertilizer/lime/mulch mix.
- D. Follow all manufacturers' instructions and recommendations. Do not mechanically disturb treated areas after application. (This does not include foot traffic as necessary to install erosion control blanket).
- E. Contractor shall furnish and install as necessary a minimum 200 lbs. of APS 700 Series Silt Stop, or approved equal, erosion control polymer for incidental "touch-up or point source erosion areas."
- F. Furnish two (2) forms of synthetic polymer:
  - 1. Emulsion polymer for hydro seeder application with an active strength of 30%.
  - 2. Powder polymer for hand spreading with an active strength of 95%.

## PART 3 - EXECUTION

### 3.01 TEMPORARY EROSION CONTROL DEVICES

- A. Construct temporary sediment barriers of silt fence at all points where surface water flows from construction area bypassing temporary sediment traps if the area is subject to soil erosion; or as otherwise indicated on Drawings or as deemed necessary by the Architect, Engineer and City Inspectors.
- B. Install temporary sediment traps and temporary sediment basins in accordance with the location and details shown on the Drawings.

- C. Continually remove accumulated sediment when control devices are one-third full of silt until permanent vegetative cover is established.
- D. Install construction exit as indicated on Drawings and maintain to prevent tracking and flow of mud onto public roads.
- E. Construct diversion berms, dikes (2'-0" wide x 1'-6" tall) or ditches at the tops of all slopes or as otherwise indicated on the Drawings.
- F. Machine compact these elements and plant temporary seed until permanent vegetative cover can be established.
- G. Maintain temporary barriers until permanent erosion control measures are established.
- H. Repair and replace barriers damaged or displaced by construction activity.
- I. Contractor shall clean out and/or adjust temporary sediment basin(s)/facility elevations to specified depth throughout duration of Project after stabilization of all disturbed areas.
- J. Compact embankment of sedimentation basin to minimum 95% Standard Proctor to the grade elevations shown on the Drawings.

### 3.02 SEDIMENTATION FACILITIES

- A. Construct temporary sedimentation facility prior to or concurrent with rough grading of site.
- B. Permanent sedimentation control measures shall be constructed concurrently with fine grading or partial fine grading of site and vegetative stabilization.
- C. Direct surface water into completed portions of sedimentation facility.
- D. Maintain temporary sediment traps around all drainage structures (both on-site and/or off-site) until permanent vegetative cover has been established to prevent washing of sediment into public storm drainage system. Utilize "pigs-in-a-blanket".
- E. Maintain temporary sediment traps at all completed or partially completed single wing, double wing catch basins, drop inlets and yard inlets.
- F. Flush drainage lines between manholes and drainage structures as required during construction and after establishment of permanent erosion control measures to remove collected debris.
- G. Install rip rap at all locations indicated on Drawings as soon as feasible.

- H. Rip rap shall be reasonably well-graded granite stone sized from smallest to maximum size specified.
- I. Stones smaller than smallest size specified are not permitted.
- J. Control gradation of rip rap by visual inspection to assure thickness of rip rap conforms to Contract document requirements.
- K. Provide geotextile filter fabric under rip rap.
- L. After land disturbance operations of any kind, survey the sediment facility and determine sediment volume that is available. If specified volume is not available, disassemble control measures, excavate sediment from facility and install control measures.
- M. Dispose of excavated sediment from facility, spread over slopes in accordance with contours shown on the Drawings and stabilize facility with permanent vegetation.
- N. Prepare and submit a certified statement of correct sediment facility volume.
- O. Do not dispose of any excavated sediment into any drainage way which might lead said material off-site onto adjacent downstream properties.

### 3.03 GROUND COVER

- A. Protect all exposed soils with mulching (temporary measure) and vegetative ground cover (permanent measure).
- B. Install Bio-Mat 40, Semi-permanent Woven Bristle Coir Mat, or approved equal blanket on all disturbed areas along with vegetative cover.
- C. Ground cover consists of temporary seeding on all graded areas which will not receive final grading or permanent planting within three (3) days.
- D. All grassing or planting operations shall include mulching as stabilization until ground cover by planting is effective.
- E. Reseed as required until full vegetative coverage is established.

### 3.04 MAINTENANCE

- A. Inspect all control elements after each rainfall event and a minimum of every two (2) weeks when no rainfall event(s) occur.

- B. Clear all debris and accumulated sediment from behind barriers when one-third (1/3) full so their functional capacity is not reduced.
- C. Repair and replace any and all damaged measures of any kind.
- D. Maintain all erosion, sedimentation, pollution control measures for delivery of correct pond volume for a period of forty-five (45) calendar days.

### 3.05 REMOVAL OF TEMPORARY EROSION CONTROL DEVICES

- A. As soon as permanent vegetative cover is established, Contractor shall remove temporary devices, including sediment barriers, berms, silt traps and similar devices.
- B. Contractor to remove retrofit structure and clean out all accumulated silt and debris in detention ponds to restore finished grades indicated on the Drawings.
- C. Remove all debris resulting from temporary erosion control from Project site.
- D. Control dust from disturbed areas by means of mulching, irrigation, calcium chloride or other method subject to Architect's review.

End of Section

## **SECTION 02 514 SITE CONCRETE**

### **PART 1 - GENERAL**

#### **1.1 SCOPE**

- A. Work covered by this Section consists of furnishing and installing Portland cement concrete for site improvements including driveway apron, curbs, wheel stop pads, ramp, sidewalks and miscellaneous site concrete and appurtenances.
- B. Concrete walks shall be minimum 4" thick and shall have a minimum slope of 1" in 4 feet, along or across the surface depending on the topography, to eliminate the ponding of water on any surface.
- C. Costs related to the removal, relocation, replacement and/or rerouting of any and all existing utilities or other built, stored, stockpiled items of any kind, surface or subsurface is the responsibility of Contractor and will be included in the Contract Sum.

#### **1.2 SUBMITTALS**

- A. Submit design mix certified by the testing laboratory employed by Contractor for the mix design based on cylinder check tests verifying the design mix.
- B. Submit mill certification certifying that cement, sand, aggregate, reinforcing steel and joint materials comply with the requirements of this Specification.
- C. Submit complete manufacturer's catalogue description of all joint materials and curing/sealing materials.

#### **1.3 PROJECT CONDITIONS**

- A. Installation shall comply with all state and local laws, ordinances, rules and regulations.
- B. Placing Temperature.
  - 1. Warm Weather. Concrete placement will not be permitted when, in the opinion of the Architect, the sun, heat, wind, or limitations of facilities furnished by the Contractor prevent proper finishing and curing of the concrete in accordance with the requirements of these Specifications.
  - 2. Cold Weather. In addition to other requirements, in cold weather, heat, protect and prepare the subgrade to produce a satisfactory subgrade entirely free from frost when the concrete is deposited. Concrete shall not be placed when the ambient temperature is below 35 degrees F. (2 degrees

C.), nor when the concrete without special protection is likely to be subject to freezing temperature before final set has occurred.

- C. All layout surveying shall be performed by a Georgia Registered Land Surveyor.
- D. Survey and maintain all bench marks, monuments and other reference points, and if disturbed or destroyed, replace at no cost to Owner.
- E. Provide proper drainage during construction in a manner to prevent damage to the work, adjoining structures and adjoining and downstream property.
- F. Patching parts of a section of work between joints shall not be permitted.
- G. Remove and replace entire damaged sections when matching existing work.
- H. Costs related to removal, relocation, replacement and/or rerouting of any and all existing utilities or other built, stored, stockpiled items of any kind, surface or subsurface is the responsibility of Contractor and will be included in the Contract Sum.
- I. Contractor shall obtain all required permits prior to the start of construction.

#### 1.4 GUARANTEE

- A. Site Concrete Contractor to provide Owner's representative a written guarantee that all Work is of good quality, free from faults and defects and in conformance with these Specifications; and that if, within one (1) year after Substantial Completion and acceptance of the Work, any Work or materials are found to be defective, Contractor will promptly, without cost to Owner, correct such defective Work or materials.

### **PART 2 - PRODUCTS**

#### 2.1 CONCRETE

- A. All site concrete shall be minimum 3,000 psi concrete at 28 days conforming to Section 03 300 - CAST-IN-PLACE CONCRETE and shall be in compliance with ASTM C94. All concrete shall be air-entrained with a minimum of 45 air. Use #57 size coarse aggregate.
- B. Cement shall comply with ASTM C150 normal Type I Specifications.
- C. Aggregates shall comply with ASTM C33.
- D. Water shall be potable.

- E. No additives shall be used without prior review of the Architect and its consulting engineers.

## 2.2 JOINT MATERIALS

- A. Expansion joint filler shall be non-extruding and resilient types conforming to AASHTO M-213 or M153.
- B. Poured joint sealer shall be a hot poured elastic type sealer intended for sealing joints in concrete pavements and shall conform to AASHTO M-173.
- C. Expansion Joint Filler for combination concrete curb and gutter shall be preformed non-extruding bituminous-treated fiberboard conforming to ASTM D 1751.

## 2.3 CURING AND SEALING MATERIALS

- A. Curing/sealing compound shall be water soluble emulsion type linseed oil base compound and conform to the requirements for Type 2 compound as specified in ASTM C 309, except that requirements for the sag test and drying time shall not apply.

## 2.4 FORM MATERIALS

- A. Form materials shall comply with the requirements of ACI 301.

# **PART 3 - EXECUTION**

## 3.1 INSPECTION

- A. Prior to placement of base material, Contractor shall inspect the site grading and ensure that sub-grade has been properly placed and compacted, and is ready to receive base material.
- B. Determine that all site drainage, piped site utilities, underground electrical, irrigation and communications conduits have been installed, tested and accepted by Architect.

## 3.2 PREPARATION

- A. Contractor shall submit to Architect for review, all materials to be used in the base and pavements.
- B. Repair subgrade as necessary to provide uniform surfaces.
- C. Spread base material and compact to 98% maximum density and within 1/8 inch of required grade.

- D. Check field density with nuclear density device or other method acceptable to Architect.
- E. Set forms on firm foundation, true to grade and securely fastened in place.
- F. No settlement or springing of forms under the finishing machine will be allowed
- G. Top face shall not vary from a true plane by more than 1/8 inch in 10 feet.
- H. Vertical sides shall not vary from a true plane by more than 1/4 inch.
- I. Clean and oil all forms prior to use.
- J. Provide work bridges where necessary for finishing, straight edging, making corrections, etc. to surface after concrete has been screeded.
- K. Bridges shall be rigidly constructed and easily moveable so that they will not come into contact with the concrete.
- L. Check alignment and grade elevations of forms and obtain approval of preparation and form work from Architect prior to placement of concrete.

### 3.3 INSTALLATION OF SIDEWALKS

- A. Place reinforcement in accordance with details shown on the drawings and secure by means of chairs, etc. as necessary.
- B. Excavate drain pockets for all weep holes and fill with coarse aggregate. Provide pipes, sleeves, or formed openings as shown on the drawings.
- C. Place concrete in a manner to avoid segregation. Spread to full width and depth of forms and bring to grade by screeding and straight edging.
- D. Give sidewalks a fine broom finish using a push broom with stiff bristles, perpendicular to the path of travel with 2" smooth trowel edges as shown on the drawings. Match adjacent concrete finishes whenever patching / replacing sections within existing areas.
- E. Final surface shall not vary from true plane by more than 1/4 inch in 10 feet.
- F. Sloped paving may be either in horizontal or vertical courses but not a mixture.
- G. Horizontal courses shall be 3 to 6 feet in width.
- H. Provide vertical contraction or construction joints at 30 feet intervals. Vertical joints shall be 1/3 the thickness of the concrete.

- I. Provide  $\frac{3}{4}$ " deep transverse grooves for sidewalks as shown on the drawings, finished with a  $\frac{1}{4}$  inch edging tool.
- J. Provide  $\frac{1}{2}$ " wide premolded expansion joints at 50' intervals and at all curbs and other rigid structures.
- K. Fill expansion joints with premolded asphaltic joint filler and cut off any protruding material flush with the finished concrete.
- L. Provide proper curing for the sidewalks using liquid curing/sealing compound.
- M. Thoroughly clean all joints immediately prior to sealing and acid and/or pressure wash concrete prior to sealing as directed by Architect.
- N. Apply sealant as soon as possible after required curing period of concrete.
- O. Prohibit traffic on sealed surfaces until sealer has cured.

### 3.4 CLEANING

- A. To achieve desired appearance, portland cement concrete paving, curbs, sidewalks shall be acid washed and/or pressure washed at Substantial Completion by Contractor if required by Architect.

End of Section

## **SECTION 02 720 SITE DRAINAGE**

### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION**

- A. Work described in this section includes, but is not limited to, construction of storm sewers, drainage structures, and drainage appurtenances.
- B. Costs related to the removal, relocation, replacement and/or rerouting of any and all existing utilities or other built, stored, stockpiled items of any kind, surface or subsurface regardless of ownership is the responsibility of the Contractor and will be included in the Contract Sum.
- C. Complete and submit certified documentation as required by the City of Sandy Springs in connection with all the storm drainage system and storm water management facilities (*i.e.* Pervious Pavements and/or Best Management Practice Facilities). The Contractor is responsible for providing an Engineer's Certificate for As-Built Detention.

#### **1.02 SUBMITTAL**

- A. Product data: Submit for each type of piping material, prefabricated structure and drainage stone. Indicate product descriptions and installation procedures.
- B. As-Built: Contractor shall provide the Owner, Architect and Sandy Springs with three (3) copies of Record Drawings ("as-built") of all underground utilities showing the location of each with dimensions shown to the building and/or curb line from each underground utility after construction is complete and an "as-built" Hydrology Study. See Paragraph 3.03 of this Section.
- C. In the event that site drainage structures and detention facility are not maintained during the construction process to the satisfaction of the Architect, an interim as built may be required to establish the extent of deficiencies.

#### **1.03 QUALITY ASSURANCE**

- A. Work here implied and shown shall be performed by a Contractor qualified to perform such work in Douglas County and licensed by the State of Georgia. Provide Certification of Qualification to Architect.
- B. Industry standards: Standards for the following, as referenced hereinafter.
  - 1. American Society for Testing and Materials (ASTM).
  - 2. American Concrete Institute (ACI).

3. Georgia Department of Transportation, "Standard Specifications for the Construction of Roads and Bridges", 1979 edition, hereinafter referred to as Georgia DOT Specifications and any supplements thereto.
  4. Jurisdiction County Development Regulations - Latest Edition.
- C. Comply with applicable requirements of The Latest Edition Georgia Department of Transportation, Standard Specifications for Construction of Roads and Bridges and any supplemental standards and specifications thereto.

#### 1.04 GUARANTEE

- A. Contractor shall guarantee the construction of all storm drainage for a period on one (1) year from date of Substantial Completion.

### **PART 2 - PRODUCTS**

#### 2.01 PIPING

- A. Contractor will use for the primary storm water drainage system Smooth Interior Corrugated Polyethylene Pipe (HDPE).
- B. Primary storm water sewer pipes are those pipes that are greater than 12-inch in diameter, regardless of material. The type, size, class or gauge, and material are illustrated on the Drawings in plan and profile and as specified on the Pipe Chart.
- C. Contractor will only use (PVC) Pipe & Fittings the secondary storm water drainage system as illustrated on the Drawings. To be used outside of buildings to intercept roof drainage down spouts and transmit the roof run-off to the primary system and rain gardens & enhanced swales systems as illustrated on the Drawings. Also to be used to connect area drains to the primary drainage system as illustrated on the Drawings. Cleanouts to the secondary system will be provided where illustrated on Drawings.
- D. Secondary storm water sewer pipes are those pipes that are 12-inch or less in diameter, regardless of material. The type, size, class or gauge, and material are illustrated on the Drawings.

#### 2.02 PIPE MATERIALS

- A. Smooth Lined Corrugated Polyethylene Pipe (HDPE) shall conform to Georgia DOT Standard Specifications Section 845.00, and shall meet the requirements of AASHTO: M 294 Type S or AASHTO MP7. The coupling bands shall engage two full corrugations on each pipe section and rubber gaskets conforming to ASTM F-477 will be required for all joints.

- B. PVC Schedule 40 Pipe & Fitting, shall conform to Georgia DOT Standard Specifications Section 847.08, and shall meet the requirements of AASHTO: D 3034 (SDR 35). Joints shall have elastomeric seals which conform to the requirements of ASTM F 477.

## 2.03 CONCRETE, MASONRY AND ACCESSORY MATERIALS

- A. Concrete: 3,000 psi compressive strength, in accord with Division 3, Concrete, including form work, reinforcement and finish. Concrete must meet Georgia DOT Specifications.
- B. Manhole brick: Meeting ASTM C32-73, Grade MM. Concrete must meet Georgia DOT Specifications.
- C. Mortar: Meeting ASTM C270-80, Type M. Concrete must meet Georgia DOT Specifications.
- D. Construction castings: Meeting ASTM A48-76, grey cast iron. Concrete must meet Georgia DOT Specifications.
- E. Manhole steps: Meeting ASTM A48-76, Class 30B, integrally cast into manhole sidewalls. Concrete must meet Georgia DOT Specifications.
- F. Gravel Fill: Meeting Georgia DOT Specifications, Section 800, size #57 stone. Concrete must meet Georgia DOT Specifications.
- G. Precast concrete manholes: Meeting ASTM C478-79, concentric cone type and Georgia DOT Specifications.
- H. Rip Rap: Meeting Georgia D.O.T. standards- 100 lb. Minimum weight per piece.
- I. Gap Graded Aggregates - Washed No. 89, Washed No. 7 Stone, Washed No. 57 Stone, Washed No.4 Stone, Washed No. 8 Stone meeting specifications of National Stone, Sand and Gravel Association, Aggregate Handbook, 1991 edition.

## PART 3 - EXECUTION

### 3.01 CONSTRUCTION OF DRAINAGE SYSTEM

- A. Excavation, filling and compaction for construction of drainage system shall be in accordance with Section 02200, Earthwork.
- B. Inspect piping prior to placing in trenches. Install no defective or damaged piping.
- C. Lay piping beginning at low point of the drainage system with joints lapped upgrade. Lay in proper alignment and to slopes indicated, fully supported on firm subgrade.

- D. Clean interior of piping of dirt and debris as work progresses. Place plugs in the ends of uncompleted piping at the end of each work period. Continue to flush lines between manholes and drainage structures as required to remove collected debris until permanent vegetative cover has been established.
- E. Lengths of storm drain pipe shown on the Drawings are approximate distances center to center of structures. Pipe quantities to convey storm drainage to points indicated in accordance with the design concept illustrated.
- F. All piping shall have watertight joints.
- G. Construct a “jig” to allow horizontal holes to be drilled in pipes 1 and 2. Holes are to be drilled to the Specifications shown on approved Shop Drawings.

### 3.02 DRAINAGE STRUCTURES

- A. Construct catch basins, drop inlets, headwalls and similar structures of reinforced concrete unless otherwise indicated; manholes of masonry, concrete or precast units at Contractor's option.
  - 1. Provide concrete foundations for manholes and other structures as indicated.
  - 2. Drainage structures shall have paved (mortar) inverts.
  - 3. Concrete structures shall be reinforced as indicated on the Drawings.
  - 4. Concrete construction shall receive a smooth formed finish in accord with ACI-301-72 on all surfaces exposed to exterior or interior of structure; rough formed for all unexposed construction.
  - 5. Moist cure concrete for a minimum of seven days after placing.
- B. Mix mortar with only enough water for workability.
- C. Retempering of mortar will not be permitted.
- D. Keep mortar mixing and conveying equipment clean. Do not deposit mortar upon or permit contact with ground.
- E. Lay masonry in full mortar bed with ends and with full vertical joints, not more than 5/8" wide. Protect fresh masonry from freezing and from too rapid drying.
- F. Apply a 1/2" thickness mortar parge coating on interior and exterior of masonry walls surfaces.
- G. Set tops of frames and covers of manholes flush with finished surface.
- H. Set drainage gratings to elevations indicated on the Drawings.

- I. Grout all structure inverts.

### 3.03 “AS-BUILT” RECORD DRAWINGS

- A. Submit to City of Sandy Springs Community Development Department three (3) sets of certified record documents of the detention facility prepared by a Georgia Registered Land Surveyor and an “As-Built” Hydrology Study prepared from the record detention survey and shall be prepared by a Georgia Registered Professional Engineer. Must be submitted to and accepted by Sandy Springs prior to the issuance of the Certificate of Occupancy. The following information shall be included in all detention basin record documents:
  - 1. As-Built Layout and Grading Plan of all paved areas.
  - 2. Depth of stone aggregate under pervious pavers.
  - 3. Size and location of driveway underdrain and outlet pipe.
  - 4. Date of record survey.
  - 5. Registered Land Surveyor’s Seal.
- B. “As-Built” Detention Facility Certificate shall contain:
  - 1. Depth of stone aggregate under pervious pavers.
  - 2. Size and location of driveway underdrain and outlet pipe.
  - 3. Calculations sufficient to prove original design intent is satisfied, if the facility was constructed differently than described in the Design Documents
  - 4. Registered Professional Engineer’s seal.
- C. Obtain a copy of the design Hydrology Report from the design Engineer use in preparation of the “As-Built” Hydrology Study.
- D. Record documents information required by the Sandy Springs Community Development Department shall be included in the Contract Sum with no additional cost to Owner.

### 3.04 INSPECTION

- A. All cleanouts shall be opened for inspection.

End of Section

## **SECTION 02 795 POROUS PAVEMENT**

### **PART 1 - GENERAL**

#### **1.1 SCOPE**

- A. Work described in this section includes the installation of pervious concrete unit pavers for sidewalks, driveway and parking areas.
- B. By submittal of his bid, Contractor acknowledges that he fully understands the full scope of Porous Pavement installation to complete new construction.

#### **1.2 SUBMITTALS**

- A. The Owner reserves the right to make final color selections (from stock colors) during the submittal process. Verify colors to be submitted via samples prior to obtaining samples for Owner's review.
- B. Manufacturers' product catalog sheets with specifications.
- C. Four representative full-sized samples of each paver type, thickness, color and finish. Submit samples representative of extremes and/or variations in color expected in the finished installation. Accepted samples represent the standard of acceptance for completed work.
- D. Manufacturer's product sheets and samples of all geotextiles to be used in the installation.
- E. Installation contractor's qualifications.
  - 1. Installation contractor must have completed a minimum of 10,000 square feet of successful installations in at least 3 local (within 100 miles of the project location) locations in the past two years. Installations must be of pervious pre-cast unit pavements.
  - 2. Submit descriptions, photographs and locations for work completed by the installation contractor.
  - 3. Work completed must be verifiable.

#### **1.3 FIELD MOCK-UP**

- A. Install a 50 square foot area with Geotextiles, Sub-base, Bedding Course, Pavers and Joint fillers.
- B. Install a Field Mock-up for each Paver and Pattern type illustrated on the Drawings.
- C. Subject to approval by the owner, the Mock-up may be retained as part of the finished work.

- D. The Mock-up to remain in place and be protected from any changes for the duration of the work so that it can be used for comparison purposes throughout the course of installation.
- E. Remove any Mock-ups not retained as part of the work after pervious paving installation has been completed and accepted by the Owner.

## **PART 2 - PRODUCTS**

### **2.1 PAVERS**

- A. Parking Lot. Belgard “Subterra Stone” or approved equal. Color blend to be “Riverstreet”.
- B. Sidewalk. Belgard “Eco-Holland” or approved equal. Color blend to be “Gray Granite”.

### **2.2 AGGREGATES**

- A. All aggregates shall be in conformance with Belgard installation standards for pervious paver installation.
- B. Aggregates to be clean, non-plastic and free of foreign matter.
- C. Aggregates must be angular. Rounded gravel or rock is not acceptable.
- D. Grading requirements for #8 Bedding course:

<u>Sieve Size</u>	<u>Percent Passing</u>
12.5 mm (1/2 inch)	100
9.5 mm (3/8 inch)	85 to 100
4.75 mm (No. 4)	10 to 30
2.36 mm (No. 8)	0 to 10
1.16 mm (No. 16)	0 to 5

- E. Grading requirements for #57 Aggregate Base

<u>Sieve Size</u>	<u>Percent Passing</u>
37.5 mm (1-1/2 inch)	100
25 mm (1 inch)	90 to 100
19 mm (3/4 inch)	40 to 85
12.5 mm (1/2 inch)	10 to 40
9.5 mm (3/8 inch)	0 to 15
4.75 mm (No. 4)	0 to 5

- F. Grading requirements for #2 Stone Sub-base

<u>Sieve Size</u>	<u>Percent Passing</u>
75 mm (3 inch)	100
63 mm (2-1/2 inch)	90 to 100
50 mm (2 inch)	35 to 70
37.5 mm (1-1/2 inch)	0 to 15
19 mm (3/4 inch)	0 to 5

## 2.3 GEOTEXTILES

- A. Woven Geotextile Fabric shall be Mirafi 140N or approved equal.
- B. Fabric shall be clean and free from any tears, holes or other damage.
- C. Overlap fabric a minimum of 12" at all seams.

## **PART 3 - EXECUTION**

### 3.1 PATTERNS

- A. All patterns shall be as described on the drawings.

### 3.2 PROTECTION

- A. Protect and prevent damage to existing construction to remain.
- B. Protect all sub-base, stone base material and pavers from contamination of all types for the duration of construction. Contamination shall include, but is not limited to; silt caused by stormwater run-off, construction materials and tracking of dirt from equipment.
  - 1. If sub-base is contaminated remove all silt or other unwanted material, scarify surface and replace removed material with aggregate bedding course.
  - 2. If any layer of the aggregate base is contaminated remove and replace all contaminated materials.
  - 3. If the paver surface is contaminated utilize a vacuum sweeper to clean all areas. If contamination has reached into the aggregate base, as determined by the Owner, remove and replace base and reset pavers. Stained pavers must be replaced.
- C. Devise and implement a detailed work plan to avoid contact with, or damage to, structures directly adjacent to or below the work areas.

End of Section

## **SECTION 02 874 BOLLARDS**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Steel Bollards

#### **1.2 RELATED SECTIONS**

- A. Section 02 514 - Site Concrete

#### **1.3 REFERENCES**

- A. ASTM A 36 - Standard Specification for Carbon Structural Steel
- B. ASTM A 53 - Standard Specification for Pipe, Steel, Black, and Hot-Dipped, Zinc Coated, Welded and Seamless.
- C. ASTM A 123 - Specification for Zinc (hot-dipped galvanized) Coatings on Iron and Steel Products

#### **1.4 SUBMITTALS**

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- B. Shop Drawings. Complete details of layout and assembly, showing member sizes and part identification, fasteners, anchors and fittings.
- C. Selection Samples. For each finish product specified provide two complete sets of color chips representing manufacturer's full range of available colors and patterns.

#### **1.5 QUALITY ASSURANCE**

- A. Manufacturers Qualifications. Minimum of 5 years experience manufacturing metal bollards.

#### **1.6 DELIVERY, STORAGE AND HANDLING**

- A. Store products in manufacturer's unopened packaging and ready for installation.

- B. Store components of the ground in a dry covered area, protected from adverse weather conditions.

## 1.7 WARRANTY

- A. Structural integrity of all metal bollards shall be warranted for a period of 5 years from date of delivery against all defects in materials workmanship.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURER'S

- A. Acceptable Manufacturer. Fairweather Site Furnishings & Accessories, Port Orchard, WA 98367-6400. Telephone: (360)895-2626. Fax: (360)895-1284. Email: sales@fairweathersf.com, www.fairweathersf.com
- B. Substitutions: Submit proposed equal products for substitution not less than 10 days prior to date of bid submittal. Review and approval of "equal" products shall be at the sole discretion of the Owner. Proposed substitutions made after the bid date are subject to rejection without review at the sole discretion of the Owner.

### 2.2 PRODUCT DESCRIPTION

- A. Model number B-4-5B2. 5 inch (127 mm) diameter bollard with two top reveals.
  - 1. Vertical element to be 5 inch (127 mm) Schedule 40 pipe, 5.56 inch (141 mm) outside diameter.
  - 2. Dome top.
  - 3. Two reveals near the top.
  - 4. Height above surface. 36 inches (914 mm).
  - 5. Lock well covers.
  - 6. Receiver covers.
  - 7. Brass padlocks, keyed alike.
  - 8. Black color, to be verified upon receipt of samples.
- B. Fabrication. All steel elements shall conform to ASTM A 53 or ASTM A 36. All fabrication wells shall be ground smooth.
- C. Finishes.
  - 1. Exposed Metal Finish: Polyester or polyester TGIC powder finish applied by the dry electrostatic process to a minimum of four mils thick on all surfaces and baked until properly cured. Colors to be selected from manufacturer's standard powder coated colors.
  - 2. Ground Receiver Finish. Receivers, covers and lock well covers to be finished after fabrication. Finish shall be hot dip galvanized to ASTM A 123, 3 - 4 mils thick in all places.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Verify existing conditions before starting work. Do not proceed until unsatisfactory conditions are corrected.
- B. Verify that foundation, applied finishes and adjacent construction are ready to receive bollards and that they are level, plumb and square.

#### **3.2 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Removable Mounting. Provide depth and diameter of installation holes as indicated on the Drawings. Receiver is to be extended a minimum of 24 inches (610 mm) below finished surface and cast in concrete. The receiver must be installed over a layer of gravel sufficient for drainage.

#### **3.3 PROTECTION**

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products prior to Substantial Completion. All repair work must be completed as per manufacturer's instructions with products provided by or specified by the manufacturer.

End of Section

## **SECTION 02 950 TREES, SHRUBS AND GROUNDCOVERS**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. Scope:
  - 1. Furnish all Plants and non-plant materials, equipment, and labor necessary for the planting of trees, shrubs, sod, ground covers, “seasonal color” and seeding of lawns. Protect and maintain all Plant Materials and related items required to complete the work illustrated on the drawings and hereinafter specified which together constitute the Landscape Improvements.
- B. Related Documents:
  - 1. The Contract Documents, as defined in the General Conditions, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other sections of these Specifications and/or other Drawings.
  - 2. Reference the Project Manual; Earthwork; Unit Pavers
  - 3. All applicable City of Sandy Springs Landscape Ordinances and Landscape or Planting Guidelines or Regulations.
- C. Project Conditions:
  - 1. Maintain access at all times to any/all existing adjacent private drives. Do not unload or store materials in private drives. Do not park in private drives.
  - 2. The Contractor is responsible for the scope of work in its entirety. He is responsible for establishment of watering rates and the watering of all plantings at all times. Hand watering of all plants is included within the Contractor’s scope of work. This watering responsibility will cease only after final acceptance of the work.
  - 3. The Landscape Contractor shall be local to the project’s community (home offices within a fifty (50) mile radius of the Project site), so as to facilitate all maintenance required after installation.

#### **1.2 SUBMITTALS**

- A. The Contractor shall contact the Landscape Architect to arrange for mutually agreeable dates and times to meet in Atlanta or its environs for inspection, selection and approval of Plant Materials. The Landscape Architect will have right of refusal of Plant Materials not meeting Owners standards. The Landscape Architect will view at least 50% of each specified Plant Materials. If Plant Materials are located on more than one site the Contractor shall make arrangements to show the Landscape Architect all materials in one business day.

The Contractor shall make initial contact with Landscape Architect more than ninety (90) calendar days in advance of anticipated start date of planting of proposed plant material for the Landscape Architect's review.

- B. At the discretion of the Owner and/or Landscape Architect; some or all plant materials may be reviewed utilizing digital photographic records.
  - 1. All photographs shall be of the actual plant materials proposed for installation on the project site.
  - 2. Multiple photographs will be required to adequately illustrate some or all of the materials. Each digital file shall be titled with the plant name and number of the photograph for the plant (for instance: Natchez Crape Myrtle 1, Natchez Crape Myrtle 2 and so on).
  - 3. Photographs must be clear and of sufficient resolution to discern plant health, leaf condition, height, spread and caliper. Use of survey rods, tape measures, calipers and other verifiable measuring devices shall be required as needed to verify plant sizes. Measuring devices shall be legible in all photographs.
  - 4. Photographs shall be copied onto CD, DVD, Thumb Drive or other commonly used storage device and sent to the Landscape Architect for review. It is permissible to submit a limited number of supplemental or follow-up photographs via email.
  - 5. It is the responsibility of the Contractor to provide all photographic records in an organized manner.

### 1.3 REFERENCED STANDARDS

- A. Standardized Plant Names (most recent edition), American Joint Committee on Horticultural Nomenclature.
- B. American Standard for Nursery Stock (most recent edition).
- C. Technical Glossary of Horticultural and Landscape Research Institute, Inc.
- D. Georgia Crop Improvement Association (GCIA), "Blue Tag" Sod Certification program.

### 1.4 INSPECTION FOR ACCEPTANCE

- A. Inspection of the planting to determine completion of the contract work in accordance with Drawings and Specifications, exclusive of the possible replacement of plant material, will be made by the Landscape Architect upon receipt of a written notice requesting such inspection submitted by the Landscape Contractor at least ten (10) calendar days prior to the anticipated date.
- B. After inspection, the Landscape Contractor will be notified in writing by the Landscape Architect of the acceptance or rejection of any work not in accordance with Drawings and Specifications. Work found not in accordance with Drawings

and Specifications shall be subject to reinspection. The guarantee period shall commence on the date of written notice which identifies acceptable work. Work which is identified as not acceptable shall be replaced or modified and reinspected. The guarantee date for this replaced or modified work shall commence upon written notification of acceptance.

#### 1.5 PLANT GUARANTEE AND REPLACEMENT

- A. Plants shall be guaranteed for one (1) year from the date of final completion and shall be alive and have achieved satisfactory growth at the end of the guarantee period. This guarantee does not apply to existing vegetation that has been transplanted or retained on or adjacent to the Project Site.
- B. At the end of the guarantee period, inspection of new planting will be made by the Landscape Architect or another designated representative of the Owner upon receiving written notice requesting such inspection from the Landscape Contractor at least ten (10) calendar days before the anticipated date. Any plant required under this Contract that is dead, unhealthy, unsightly or in a badly impaired condition, as determined by the Landscape Architect, shall be removed from the site. These and any Plants missing due to the Landscape Contractor's negligence shall be replaced as soon as conditions permit during the normal planting season at no additional cost to the Owner. All replacement shall be in compliance with the Construction Documents.

#### 1.6 SUBSTITUTIONS

- A. Substitutions will be permitted only upon authorization by the Landscape Architect. Substitutions shall be requested in writing no later than ten days prior to the bid date. All proposed substitutions shall possess the same characteristics as the plant specified with regard to appearance, planted height and width, ultimate height and width, shape, habit of growth, required soil conditions, climatic conditions and other requirements. In no case shall average cost and value of substituted plants be less than the cost and value of plants actually specified. Plants of greater value may be accepted without additional cost to the Owner.

#### 1.7 MAINTENANCE

- A. Optional Maintenance Services: Provide a proposal to perform one (1) year Landscape Maintenance commencing at date of final acceptance of work. This proposal shall be an optional item to be considered by the Owner and is not part of the base contract.
  - 1. Maintenance shall include mowing, trimming, pruning, fertilizing, watering, weeding, cultivating, mulching, tightening and repairing guys, removal of dead vegetation, resetting plants to proper grades or upright position and restoration of the planting saucer, and any other necessary operations. Provide a comprehensive chemical treatment program for all landscape materials. Provide seasonal color in like quantities and kind

- throughout the one (1) year maintenance period.
2. Watering (by hand or Irrigation System) of all plantings to maintain plant health, vigor and growth is part of Landscape Maintenance whether the Irrigation System is functioning or not.
- B. Included Maintenance Services: Maintenance commences when planting operations start and continues until the date of final completion. Provide the Landscape Architect a written schedule for watering, fertilizing, trimming and other maintenance of all plant material prior to commencement of any work.
1. Protect and maintain all planted areas by watering, re-mulching and replanting as may be necessary to produce an established mass of ground cover, perennials or shrubbery. Continue maintenance until date of final completion.
  2. Trees and shrubs shall be protected and maintained by the Landscape Contractor until date of final completion. Maintenance shall include watering, weeding, cultivating, mulching, tightening and repairing guys, removal of dead vegetation, resetting plants to proper grades or upright position and restoration of the planting saucer, and any other necessary operations.
- C. At the end of each day's work, remove all trash and other debris resulting from work on the site. Keep vehicular and pedestrian circulation clear of any such trash or debris throughout the duration of the project. Prior to date of final completion, thoroughly clean by sweeping and/or pressure washing all paved areas adjacent to planting areas. Any defacement or stains on pavement or building caused by plant operations shall be removed at no additional cost to the Owner. Remove all construction equipment, excess materials, tools, rubbish or debris from the site. Regularly clean out all drains on the site which have accumulated soil, mulch or any other material due to the planting operation.
- D. Plantings shall be free of paint, grease or other damage caused by any or all Contractors. The Landscape Contractor shall be responsible for the resolution of any such damage.

## 1.8 SAMPLES, TESTS AND INSPECTIONS

- A. Notify the Owner's Representative within ten (10) days after award of Contract as to the proposed sources of the required Plant Materials. Any specified or desired sampling or testing by the Landscape Architect shall be performed in sufficient number to ensure that all required materials for the planting operation are consistent with best horticultural practices, the Drawings and these Specifications. Provide copies of test results to the Landscape Architect for this review. Perform testing at no additional cost to the Owner.
- B. The Landscape Architect reserves the right to inspect and tag all materials required to complete the planting operation. Replace materials the Landscape Architect believes are not consistent with the Drawings or Specifications at no additional cost to the Owner.

- D. Provide all certificates of inspection of Plant Materials that may be required by Federal, State or other authorities to accompany shipments of plants.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS OTHER THAN PLANTS**

- A. Provide "mulch" as illustrated or described in the Drawings and Specifications.
- B. Provide water free of oil, acid, alkali, salt, and other substances harmful to plant growth. Provide adequate supply of water. Provide necessary temporary hose equipment, attachments and accessories for the adequate irrigation of planted areas as may be required to complete the work as specified.
- C. Burlap shall be made of jute and shall weight not less than 7.2 ounces per square yard.
- D. Materials for Staking, Guying and Wrapping
  - 1. Stakes for supporting trees shall be six (6) foot long "T" posts and painted flat black.
  - 2. Wire for guys or for fastening trees to stakes shall be No. 12 gauge pliable, galvanized iron.
  - 3. Hose to encase guy wires or wires used for fastening trees to stakes shall be new 2-ply reinforced black rubber garden hose.
  - 4. Wrapping material for tree trunks shall be 2 thicknesses of heavy crinkled paper adhered together with bituminous material. Wrapping material shall be in strips 6 to 8 inches wide. Twine for tying shall be lightly tarred medium or coarse sisal yarn.
  - 5. Hardware used in staking and guying operations shall be hot dipped galvanized steel.
  - 6. Anchors used in guying shall be rough sawn, pressure treated wood.

### **2.2 PLANT MATERIALS**

- A. A list of plants is labeled on Drawings under "Plant Schedule". Verify Plant quantities prior to submitting bids; and in all cases the "keyed" or symbolized plant material quantities govern quantities. Count all "keyed" or symbolized plant material quantities. No additional cost to the Owner will be considered due to the failure to verification of plant material quantities.
- B. The names of plants required under this contract conform to those given in Standardized Plant Names, (most recent edition) prepared by the American Joint Committee on Horticultural Nomenclature. Names of varieties not included therein conform generally with names accepted in the nursery trade.
- C. Use "Specimen Plants" as defined in the Technical Glossary of Horticulture and

Landscape Terminology (most recent edition) prepared by the Horticultural Research Institute, Inc. Use plants typical of their species and variety; normal growth habits (unless otherwise noted); well-developed branching; densely foliated with vigorous, fibrous root systems. The Owner's Representative and the Landscape Architect maintain the right to reject any plants at any time during construction or the guarantee period, if such plants are inconsistent with these Specifications.

- D. Use plants free from defects, injuries, plant diseases and insect infestations. Remove any plants found to contain any such defects that day and replace immediately with healthy specimens.
- E. Use plants with height/caliper, height/foilage spread, height/ root spread, root ball dimension and/or other standards consistent with the American Standard for Nursery Stock (most recent edition) prepared by the American Association of Nurserymen, Inc.
- F. Use plants of each particular variety with reasonably uniformity in size and configuration.
- E. Use freshly dug and/or nursery grown plants. For nursery grown plant materials, use plants transplanted or root pruned at least once in the past two (2) years. Use plants grown under climatic conditions similar to those in the project locality; or otherwise acclimated for at least two (2) years to conditions similar to those in the project locality.
- F. Use new trees with straight trunks with a single leader intact unless multi-stem are specified. Use trees with bark free of abrasions. All fresh cuts over 1 1/4 inches shall be calloused over. Trees will not be accepted which have had their leaders cut or which have had their leaders damaged so that cutting is necessary. Unless otherwise specified, all deciduous shade trees shall be free of branches up to five feet from the top of the root ball and 6'-8" from the top of the root ball when tree is in or adjacent to walkways, well branched, and reasonably straight stems.
- G. Use plants equal or in excess of the measurements specified in the "Plant Schedule". Use plants pruned at the time of planting. Use plants measured after pruning with branches in their normal position.
- H. Plants shall be dug and prepared for shipment in a manner that will not cause any damage to the branches, shape and future development of the plants after planting. The root balls of balled and burlapped plants which cannot be planted immediately on delivery shall be covered with moist soil or mulch or other protection from drying winds. Bare-rooted plants if specified shall be planted or healed-in immediately upon delivery. All plants shall be watered upon delivery.
- I. All plants shall be balled and burlapped unless otherwise specified. They shall be dug with firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery for the plant.

Balls shall be firmly wrapped with burlap and bound with twine or cord. Where necessary to prevent breaking or cracking of the ball during the process of planting, the ball may be secured to a platform.

- J. Plants listed as seasonal color shall be starting their season of color in full bloom at time of planting. All seasonal color shall be in bloom at time of planting.

### **PART 3 - EXECUTION**

#### **3.1 CONSTRUCTION AND PLANTING METHODS**

- A. Conduct Planting operations under favorable weather conditions during seasons which are normal for such work as determined by accepted practice in the locality of the project. Planting operations may be conducted under unseasonable conditions at the option and on the full responsibility of the Landscape Contractor and with the review of the Owner's Representative. If losses occur for which replacements are required, there shall be no additional costs to the Owner.
- B. Any rock or other underground obstruction shall be removed to the depth necessary to permit proper planting illustrated on the Drawings or described in the Specifications. If underground construction and obstructions, overhead wires or other site appurtenances are hindering the specified planting operation, contact the Owner's Representative immediately. When the location of utility lines is illustrated on the construction documents, or has otherwise been made known to the Contractor, any damage to these lines during plant operations will be repaired by the Contractor in an acceptable manner at no additional cost to the Owner.
- C. Planting of Trees and Shrubs
1. New planting shall be located where illustrated on the Drawings except where changes by the Landscape Architect have been made in construction.
  2. Exercise reasonable care to have pits dug and Specialty Soils prepared prior to moving plants to their respective locations for planting to ensure that they will not be unnecessarily exposed to drying or to physical damage. Excavate pits with vertical sides for all plants except for planting bed configurations. Dimensions of pits for trees and shrubs shall be as illustrated on the Drawings. Excavate pits for trees and shrubs sufficient to accommodate the ball or roots when the plant is set to finished grade or as otherwise illustrated on the Drawings or "Planting Details".
  3. Unless otherwise specified, set plants in pits, centered, and set to such a depth that the finished grade level of the plant after settlement will be the same as that at which the plant was grown. Plant upright and arranged to render the best appearance or relationship to the predominant viewing angle. Remove plant containers; or pull burlap back from the stem of the plant as required. Place soil mixture as specified and compact carefully to avoid injury to roots and to fill all voids. When the hole is filled, add water as necessary and allow it to soak away. Fill the hole to finished grade, and form a shallow saucer around each plant by placing a ridge of topsoil around the edge of each pit. Attain finish grade after any settlement.

4. Staking, Wrapping and Guying
  - a) Support all trees immediately after planting as designated under "Planting Details" on the working drawings.
  - b) Stakes shall be equally spaced about each tree and driven vertically into the ground to a depth of 2 feet in such a manner as not to injure ball or roots.
  - c) Trees shall be fastened to each stake at a height of 4 feet from finished grade by means of two strands of wire.
  - d) Stakes shall be one third height of tree above ground and placed as designated on the working drawings.
  - e) Wires shall be encased in hose to prevent direct contact with bark of the tree and shall be placed around the trunk in a single loop.
  - f) Wire shall be tightened and kept taut by twisting the strands together.

End of Section

## **SECTION 16 010 ELECTRICAL GENERAL REQUIREMENTS**

### **PART 1 - GENERAL**

#### **1.1 SCOPE OF WORK**

- A. Contractor shall install all electrical work covered by the below specifications and approved drawings. Provide all material, labor transportation, tools, supervision, etc., necessary to complete the total electrical job. All items not specifically mentioned herein which are obviously necessary to make a complete working installation shall be provided by the contractor, including any necessary field engineering and/or detail drawings required. Drawings shall be submitted for approval as provided for in "16010-1.4 Shop Drawings".
- B. The work shall consist of, but shall not be limited to, the installation of the following systems:
  - 1. Exterior and interior electrical systems for power, lighting, controls, miscellaneous systems as indicated on the Drawings.
  - 2. Power connections to equipment specified in Specifications and Approved Drawings.
  - 3. Temporary Power as required for the project.
  - 4. Fire seal all floor, wall or ceiling penetrations in any rated assembly back to their original ratings.

#### **1.2 CODES AND FEES:**

- A. All work shall be done in accordance with the requirements of the National Electrical Code, NFPA #70, 2011 Edition, all local and state codes and the regulation of the local utility companies providing services.
- B. The contractor shall obtain and pay for all permits and inspections required by the building and safety codes and ordinances and the rules and regulations of any legal body having jurisdiction.
- C. All electrical items covered by this specification shall be U.L. labeled and listed for the purpose.

### 1.3 DRAWINGS:

- A. The drawings indicate the general arrangement of electrical equipment.
- B. Dimensions for layout of equipment shall be obtained from the electrical drawings or electrical shop drawings as required.
- C. Discrepancies shown on different drawings, between Drawings and Specifications or between documents and field conditions shall be promptly brought to the attention of the Engineer and Owner.

### 1.4 SHOP DRAWINGS:

- A. The contractor shall submit for review by the Engineer, eight sets of complete schedules and data of materials and equipment to be incorporated in the work. Submittals shall be supported by descriptive materials, such as catalog sheets, product data sheets, diagrams, performance curves, and charts published by the manufacturer, to show conformance to specification and drawing requirements, model numbers alone will not be acceptable. Data submitted for review shall contain all information required to indicate compliance with equipment specified. Complete electrical characteristics shall be provided for all equipment. Submittals for lighting fixtures shall include photometric data. The Engineer reserves the right to require sample of any equipment to be submitted for approval.
- B. Each individual submittal item for materials and equipment shall be marked to show specification section and paragraph number which pertains to the item.
- C. Prior to submitting shop drawings, the contractor shall review the submittal for compliance with the contract documents and place a stamp or other confirmation thereon which states that the submittal complies with contract requirement. Submittals without such verification will be returned without review.
- D. Eight complete sets of Submittals shall be made for each of the following items:

Compatible Circuit Breakers	Conduits
Lighting Fixtures/Poles/Lamps	Conductors
Wiring Devices	Lighting Controls
Control Components	

### 1.5 RECORD DRAWINGS:

- A. At the time of final inspection, provide three (3) sets of complete data on electrical equipment used in the project and Reproducible As-Built

Drawings reflecting all field changes. This data shall be in bound form and shall include the following items:

1. Test results required by these specifications.
2. Panelboard shop drawings and copies of the final circuit directories reflecting all field changes.
3. Data sheets indicating electrical characteristics and construction details of all devices, panelboards, light fixtures and associated equipment.
4. All conduits that are buried less than 36" below grade shall be identified on the As-Built Drawings. Indicate the entire length of the conduit run that is less than 36" below grade on the "As-Built Drawings"
5. All "As-Built" Drawings shall have the Contractor's name, address, telephone number, date and indication that the drawings are "As-Built".

1.6 UTILITY SERVICES:

- A. Electrical power service shall be as indicated on the drawings. The Contractor is responsible to coordinate with the local utility company as to the date service is required to the site.

1.7 SITE INVESTIGATION:

- A. Prior to submitting bids of the project, the contractor shall visit the site of the work to become aware of **ALL EXISTING** conditions which may affect the cost of the project.

1.8 COOPERATION:

- A. The contractor shall coordinate his electrical activities with other trades so as to avoid delays, interference's, and any unnecessary work.

1.9 GUARANTEE:

- A. For guarantee of work under Division 16, refer to the general and special conditions.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS:**

- A. Materials or equipment specified by manufacturer's name shall be used, unless alternate manufacturers are approved by the Owner/Engineer prior to the bid.
- B. All material shall be new and shall conform to the applicable standard or standards where such have been established for the particular material in question. Publications and standards of the organization listed below are applicable to materials specified herein.
  - 1. American Society for Testing and Materials (ASTM).
  - 2. Underwriters' Lab (UL).
  - 3. National Electrical Manufacturer Association (NEMA).
  - 4. Insulated Cable Engineers Association (ICEA).
  - 5. Institute of Electrical and Electronic Engineers (IEEE).
  - 6. Edison Electric Institute (EEI).
  - 7. National Fire Protection Association (NFPA).
  - 8. American Wood Preservers Association (AWPA).
  - 9. American National Standards Institute (ANSI).
- C. Material of the same type shall be the product of a single manufacturer.

## **PART 3 - EXECUTION**

### **3.1 WORKMANSHIP:**

- A. All work shall be neatly, orderly, and securely installed with conduits, panels, boxes, switches, etc., perpendicular and/or parallel with the principle structural members. Exposed raceways shall be offset where they enter surface mounted equipment. Wiring installed in panels and other enclosures shall be looped and laced and not wadded or bundled.

### 3.2 TESTS:

- A. At final inspection, a test will be made and the entire system shall be shown to be in proper working order as per these specifications and the approved drawings.
- B. Contractor shall provide all instruments, labor and materials for any essential intermediate and final testing.
- C. Equipment covers (i.e., panelboard trims, motor controls, device plates, and junction box covers) shall be removed, as directed, for inspection of internal wiring. All circuits throughout project shall be energized and shall be tested for operation and equipment connections in compliance with contract requirements.
- D. Perform the following test after the installation but prior to energizing equipment:
  - 1. Megger test all feeders and branch circuits 50 Amps or greater. Allowances for leakages shall be within the manufacturers recommend tolerances. Testing methods shall be per the cable manufacturer's recommendations. Certified test results and the manufacturers data/recommendations shall be provided to the Owners Representative as indicated below.
  - 2. The Contractor shall perform any other test which may be required by any legal authority having jurisdiction to verify this installation meets that requirement or requirements.
  - 3. Primary injection test shall be performed on all ground fault relays to assure the proper operation and settings and as per NEC Article #230.95 (C). A written record of this test will be made available to the Chief Electrical Inspector, the Engineer or the Electrical Plan Reviewer prior to the Final Electrical Inspection.

### 3.3 IDENTIFICATION:

- A. Contractor shall identify each device such as timeclock, controllers, etc. with Black on White Phenolic Tags using machine cut letters, 1/4" minimum height, unless otherwise noted. Permanently attach to each device as required. For all panelboards, switchboards, transformers, fusible disconnecting motor starters, fusible disconnect switches and remote ballast enclosures include name, voltage, phase, number of wires, ampacity rating, short circuit rating and name/location of feed to the device.

- B. Contractor shall provide and install a Black on White Phenolic Tag using machine cut letters, 3/8" minimum height, unless otherwise noted. Permanently attach to the Main Distribution Switchboard as required. This tag will indicate the maximum available fault current at the Main Distribution Switchboard and the date calculated as required by NEC Paragraph 110.24 (A).

### 3.4 CLEANING AND PAINTING:

- A. Oil, dirt, grease, and other foreign materials shall be removed from all raceways, fittings, boxes, panelboard trims, and cabinets to provide a clean surface for painting. Scratched or marred surfaces of lighting fixtures, panelboard and cabinet trims, switchboard, or other equipment enclosures shall be touched up with paint furnished by the equipment manufacturers specifically for that purpose. Painting in general is specified under other sections of the specifications.
- B. Trim covers for flush-mounted panelboards, telephone cabinets, pull boxes, junction boxes and control cabinets shall not be painted unless specifically required by the architect. Where such painting is required, trim covers shall be removed for painting. Under no conditions shall locks, latches or exposed trim clamps be painted.

### 3.5 EXCAVATION, TRENCHING AND BACKFILLING:

- A. All conduits shall be buried a minimum of 36" below finished grade. Provide and install magnetic warning tape 12" below finished grade over the entire length of all buried conduits.
- B. The contractor shall perform all excavation to install the electrical work herein specified. During excavation, material for backfilling shall be piled back from the banks of the trench to avoid overloading and to prevent slides and cave-ins. All excavated materials not to be used for backfill shall be removed and disposed of by the contractor. Grading shall be done to prevent surface water from flowing into trenches and other excavation and any water accumulating therein shall be removed by pumping. All excavation shall be made by open cut. No tunneling shall be done. Any area disturbed during excavation shall be repaired back to its original condition, i.e.: paving, concrete, grassing, sod, gravel, sidewalks, etc.

- C. The bottom of the trenches shall be graded to provide uniform bearing and support for conduits, cables, or duct bank on undisturbed soil at every point along its entire length. Overdepths shall be backfilled with loose, granular, moist earth, tamped. Remove unstable soil that is not capable of supporting equipment or installation and replace with specified material for a minimum of 12" below invert of equipment or installation.
- D. The trenches shall be backfilled with the excavated materials approved for backfilling, consisting of earth, loam, sandy clay, sand and gravel or soft shale, free from large clods of earth and stones, deposited in 6" layers and rammed until the installation has a cover of not less than the adjacent ground but not greater than 2" above existing ground. The backfilling shall be carried on simultaneously on both sides of the trench so that injurious pressures do not occur. The compaction of the filled trench shall be at least equal to 95% of the maximum density as determined by the Standard Proctor Test. Settling the backfill with water will not be permitted. Reopen any trenches not meeting compaction requirements or where settlement occurs, refill, compact, and restore the surface to the grade and compaction indicated, mounded over and smoothed off.
- E. Contractor shall repair all surfaces disturbed by the installation of all underground conduit systems back to their original condition with the same type of material and construction and/or up-grade as approved by the Owners Representative and Engineer. Any paved area or hard surface disturbed (asphalt or concrete paving) shall be saw cut to have clean and straight edges for the required trenching and repaired back to its original condition as indicated above.
- F. The Contractor shall provide **ALL REQUIRED** erosion control for this project as required by the County / City / State Officials.

### 3.6 DIRECT BORING:

- A. The contractor shall direct bore conduit runs in this project where indicated on the Drawings or as an alternate to trenching, at the Contractor's option. Minimum depth of all conduits shall be 36" below finished grade. All excavated materials shall be removed and disposed of by the contractor. Any area disturbed during boring shall be repaired back to its original condition, i.e.: paving, grassing, sod, gravel, etc.
- B. Contractor shall repair all surfaces disturbed by the installation of all underground conduit systems back to their original condition with the same type of material and construction and/or up-grade as approved by the Architect and Owner. No holes or trenches shall be left open after the end of each work day.

- C. All direct bore conduits shall be accurately located on the Contractor's "As-Built" Documents that are to be provided to the Owner at the completion of the project.
- D. The Contractor shall provide **ALL REQUIRED** erosion control for this project as required by the County / City / State Officials.

End of Section

## **SECTION 16 100 BASIC MATERIALS AND METHODS**

### **PART 1 - GENERAL**

#### **1.1 GENERAL:**

- A. Provide complete conduit system including boxes, fittings and supports.  
All empty conduits shall be left with fiber polyline pull cord

#### **1.2 RACEWAYS:**

- A. Contractor shall install all conduits as per the below requirements.
  - 1. Intermediate Metal Conduit (IMC) shall be ferrous galvanized conduit and shall comply with Article 342 of the National Electrical Code.
  - 2. Rigid steel conduit shall be ferrous galvanized conduit and shall comply with Article 344 of the National Electrical Code.
  - 3. Electrical Metallic Tubing (EMT) shall be ferrous galvanized conduit and shall comply with Article 358 of the National Electrical Code. EMT conduit shall be used only in areas with concealed conduits or above 15 feet above the finished floor for lighting or miscellaneous power circuits for outlets and welding outlets.
  - 4. Liquid tight flexible metal conduit shall comply with Article 350 of the National Electrical Code.
  - 5. Flexible metal conduit shall comply with Article 348 of the National Electrical Code.
  - 6. Rigid nonmetallic conduit shall be polyvinyl chloride Schedule 40 (PVC) and comply with Article 352 of the National Electrical Code. Schedule 40 (PVC) conduits shall be used only as indicated on the Drawings. No exposed Schedule 40 (PVC) conduits will be allowed, unless otherwise noted on the Drawings.
- B. Coordinate all raceways with the mechanical ductwork and plumbing work installed in the job.
- C. Seal all penetrations through any rated floor; wall or ceiling shall be sealed back to their original rating.

## **PART 2 - PRODUCTS**

### **2.1 CONDUCTORS:**

- A. All conductors shall be copper and have 600 volt type THHN/THWN insulation except where noted on drawings. Conductors installed where fixtures are used as raceway shall be 90°C Type THHN or XHHN.
- B. All branch circuits shall be a minimum of #12 AWG solid or stranded copper except for motor leads, which shall be a minimum #12 AWG, stranded copper, unless otherwise noted on drawings.
- C. All branch circuit and feeder conductors, No. 6 AWG and smaller shall be color coded as follows: 120/240 volt, single phase system, Phase A--Black, Phase B--Red, Neutral--White, Ground--Green.

### **2.2 PULLBOXES:**

- A. All pull boxes shall be constructed of code gauge galvanized sheet steel and comply with Article 314 of the National Electrical Code, for the number, size and position of conduits entering the box, size of box and maximum number of conductors in a box.

## **PART 3 – EXECUTION**

### **3.1 RACEWAYS:**

- A. Exposed conduits shall be installed parallel or at right angles to existing walls, ceilings, and structural members. Support exposed conduits at not more than ten foot intervals and within three feet of outlets, junction boxes, cabinets and fittings. Individual runs of conduits shall be supported by one hole conduit straps; groups of conduits shall be supported on 1 1/2" X 1 1/2" fourteen gauge galvanized steel channel; Kindorf, Unistrut or Powers, suspended from structure with 1/2" threaded steel rods with spring steel conduit supporters. Attach rods to structure with swivel type clamps. Individual runs of exposed conduits attached to structural steel shall be supported by beam clamps. Where conduits must pass through structural members obtain approval of Engineer with respect to location and size of hole prior to drilling.
- B. Concealed branch circuit conduits shall be supported at intervals not exceeding ten feet and within three feet of each outlet, junction box, cabinet or fitting. Individual branch circuit conduits shall be attached to structural steel members with spring steel type conduit clips and to non-metallic structural members with one hole conduit straps. Where branch circuit conduits must be suspended below structure, conduits shall

be supported by trapeze type support, typical to the type for exposed conduits indicated above. Conduits shall not be attached to channels of ceiling suspension system or suspension wires. Concealed feeder conduits larger than one inch trade diameter, above ceiling, shall be attached to structure on intervals not exceeding twelve feet with conduit beam clamps, one hole conduit straps or trapeze type support in accordance with conditions encountered.

- C. Conduit support device shall be attached to structure with wood screws on wood, toggle bolts on hollow masonry, lead shield on solid masonry and machine bolts, clamps or spring steel clips on steel. Nails are not acceptable.
- D. Rigid conduit shall be attached to sheet metal enclosures with two bonding type lock nuts and insulated bushing. EMT connectors and couplings shall be watertight compression type and manufactured by Thomas and Betts or Appleton. All connectors shall be of the insulated throat type. Rigid conduit stub ups not attached to enclosure shall be terminated with steel insulated throat, grounding type bushing. All connectors and couplings shall be approved for the purpose.
- E. Expansion fittings shall be provided in all feeder conduits where conduits pass through building expansion joints. All conduits penetrating rated fire walls or rated fire floors shall be installed with devices to maintain the fire rating of the wall or floor penetrated. Use O.Z. Gedney "Fire-Seal" or approved alternate. Contractor shall caulk holes on both sides of smoke walls where conduits penetrate.
- F. Protect conduits against dirt, plaster, and foreign debris with conduit plugs. Plugs shall remain in place until all masonry work is complete.
- G. All conduits entering buildings from below grade shall be sealed with fiber and insulating electrical putty to prevent entrance of moisture.
- H. Conduit seals shall be used where noted on drawings and per Article #300-5 and #300-7 of the National Electrical Code. Seals shall be Crouse-Hinds Type "EYS", Appleton Type "EYF" or O.Z. Gedney Type "EY" or "EYA".
- I. Flexible conduit shall comply with the above and below specifications.
  - 1. Flexible conduit shall be used for connection to vibrating equipment, electric duct heaters, unit heaters and rotating machinery and for connection from junction box to corresponding recessed lighting fixture.

2. Flexible conduit used for other than connections to lighting fixtures shall not be less than one-half inch trade size and in no case shall flexible conduit size be less than permitted by the National Electrical Code for the number and size of conductors to be installed therein. Three-eighths inch flexible conduit may be used for connection to lighting fixtures providing conduit fill requirements of National Electrical Code are not exceeded.
3. Ground continuity through flexible conduit shall be maintained with green equipment grounding conductor, do not use flexible conduit for ground continuity.
4. When exposed to weather, when specifically indicated, or when installed in areas subject to moisture, flexible conduit shall be liquidtight type.
5. All connectors for flexible conduit shall be standard set screw type, cast connectors, bushed as required for flexible conduit. When used with liquid type flexible conduit, connectors shall be standard compression type.

### 3.2 PULL OR JUNCTION BOXES:

- A. Pull boxes shall be provided where specifically indicated and where required to facilitate the installation of conductors. Pull boxes shall be installed exposed only in unfinished spaces, unless otherwise specifically indicated, and shall be installed to be fully accessible.
- B. Where pull boxes are installed in finished spaces, boxes shall be as indicated on the Documents.
- C. Pull boxes required for horizontal feeders containing more than one feeder shall be provided with reinforced flange and removable 12 gauge 1 1/2" X 1 1/2" galvanized channel for support of conductors. Wood supports within pull boxes are not acceptable.
- D. Splices shall not be permitted in pull boxes except when specifically approved in writing by the Architect or where specifically shown on the drawings. Where splices are permitted, splices shall be made with splicing sleeves attached to conductors with hydraulic crimping tool. Split bolt connectors are not acceptable for splices within pull boxes.
- E. Feeders within pull boxes shall be individually laced with nylon tie straps of the type with enlarged tab to permit identification of each feeder within pull box.

- F. Minimum pull or junction box size shall be as per the NEC.

### 3.3 CONDUCTORS:

- A. All feeder and branch circuit conductors No. 4 AWG and larger shall be phase identified in each accessible enclosure by 1" wide plastic tape attached to conductors in a readily visible location. Tape colors shall match color requirements specified herein.
- B. All branch circuit conductors shall be connected as indicated on the drawings. All conduits shall have a ground wire pulled and shall comply with Article 250 of the National Electrical Code.
- C. Conductors within enclosures, i.e., panels, terminal cabinets, control cabinets shall be grouped and laced with nylon tie straps. Conductors within pull boxes shall be grouped and identified with nylon tie straps with circuit identification tag.
- D. Splices in conductors shall be made only within junction boxes, wiring troughs and other enclosures as permitted by the National Electrical Code, 2011 Edition. Do not splice conductors in panelboards, safety switches, or motor control enclosures. Splices in conductors No. 10 AWG or smaller shall be made with Skotchlok insulated spring connectors, Ideal wing nuts, or Ideal steel crimp connectors with wrap-cap insulating caps. Splices in conductors No. 8 AWG and larger shall be made with split bolt connectors taped with No. 88 plastic electrical tape or Ideal Type GP or GT tap connectors and insulating cover unless splices are specifically indicated to be made with crimping sleeve applied to conductors with hydraulic operated crimping tool.
- E. Conductors used only for 120 volt control wiring systems shall be minimum No. 14 AWG stranded type MTW 600 volt insulation. Control conductors to be J.I.C. color coded. Where control conductors terminate on terminal strip, make termination with lug applied to conductor with crimping tool.
- F. Phase rotation established at service equipment shall be maintained throughout entire project.
- G. Pull wires shall be 500# minimum test continuous fiber polyline.

End of Section

**SECTION 16 400**  
**ELECTRICAL SERVICE AND DISTRIBUTION EQUIPMENT**

**PART 1 - GENERAL**

1.1 GENERAL:

- A. Provide and install all electrical distribution equipment as specified, scheduled or indicated on the approved drawing and these specifications.

**PART 2 - PRODUCTS**

2.1 COMPATIBLE CIRCUIT BREAKERS:

- A. Shall be as indicated on the Drawings. Each shall be the same manufacturer and have the same AIC ratings, voltage ratings, etc. as the existing circuit breakers in the panelboard where the breakers are being installed.

**PART 3 - EXECUTION**

3.1 MANUFACTURERS' RECOMMENDATIONS:

- A. The contractor shall install all electrical distribution equipment in accordance with the manufacturer's recommendations and these specifications.

End of Section

## **SECTION 16 450 GROUNDING**

### **PART 1 - GENERAL**

#### **1.1 GROUNDING:**

- A. Shall comply with Article 250 of the National Electrical Code and all state and local codes and the requirements of the utility company serving the site.
- B. Grounding shall be provided as per these specifications and the approved drawings.
- C. The electrical system shall be a grounded single phase supplemented with equipment grounding systems. All non-current carrying parts of the electrical system i.e., raceways, equipment enclosures and frames, junction and outlet boxes, machine frames and other conductive items in close proximity with electrical circuits, shall be grounded to provide a low impedance path for potential ground faults.
- D. The neutral conductor of the 120/240 Volt, Single Phase, 3 Wire systems shall be grounded to the ground system as indicated on the drawings. Grounding conductor shall be copper sized in accordance with Table 250.66 of the National Electrical Code and as indicated on the drawings. Conductor shall be installed in PVC Conduit to the ground point connection.

### **PART 2 - PRODUCTS**

#### **2.1 PRODUCTS:** Not applicable.

### **PART 3 - EXECUTION**

#### **3.1 GROUNDING:**

- A. A grounding conductor shall be installed in all power and lighting conduit installations. All circuit grounding conductors shall be sized as per Table 250.122 of the National Electrical Code.

End of Section

## **SECTION 16 500 LIGHTING FIXTURES**

### **PART 1 - GENERAL**

#### **1.1 GENERAL:**

- A. Lighting fixtures shall be selected from those fixtures included in the fixture schedule.
- B. Request for fixture substitutions shall be as identified in the Instructions to Bidders and must be accompanied by construction specifications, photometric test data including foot lambert reading, and complete dimensions. Data for exterior lighting luminaries must also contain isocandle curves and average lumen distribution data.
- C. Fixtures shall be selected from the fixture schedule not only by catalog number, but with consideration to mounting, number and types of lamps, and reference notes all as contained in the fixture schedule and/or drawings.
- D. Lamps shall be provided for all fixtures in accordance with fixture schedule and/or manufacturer's recommendations.
- E. Verify fixture numbers, before placing order, to assure that fixtures will be furnished with proper frames, fitting and devices for installation in the ceiling system into which it is to be installed.

### **PART 2 - PRODUCTS**

#### **2.1 BALLASTS:**

- A. Ballast shall be Electronic Type Ballast; Class P thermal rating and Class A sound rating that operates at a frequency of 20 to 35 kHz with no detectable flicker and meets the requirements of the FCC and NEMA. See Fixture Schedule for the voltage requirements for the ballast.

#### **2.2 LAMPS:**

- A. All lamps shall be furnished and installed by the Contractor as per the Fixture Schedule.
- B. Lamps shall be Sylvania or General Electric or approved equal.

**PART 3 - EXECUTION**

**3.1 MANUFACTURER'S RECOMMENDATIONS:**

- A. Install all lighting fixtures in accordance with the manufacturer's recommendations, as herein specified, or as indicated on the drawings.

End of Section

## **SECTION 16 700 AUXILIARY SYSTEMS**

### **PART 1 - GENERAL**

#### **1.1 GENERAL:**

- A. Provide and install all electrical auxiliary systems as indicated on the drawings and/or specifications. The work shall consist of, but not be limited to, the installation of the following:
  - 1. Empty conduits for security cameras. Security cameras are to be installed by others.

#### **1.2 SUBMITTALS**

- A. Comply with other pertinent provisions of this specification.
- B. Provide to Owner and Engineer for approval any changes, additions, corrections, etc. required to the Bid Documents that are needed to accommodate the system being proposed. The changes, additions, corrections, etc. shall be at the Contractor's expense and shall be included in his Bid.

### **PART 2 - PRODUCTS**

#### **2.1 GENERAL**

- A. Empty conduits shall be as specified on the drawings and in Specifications section 16100.

### **PART 3 - EXECUTION**

#### **3.1 COORDINATION OF WORK**

- A. Coordinate work of this Section with work of other sections of these Specifications and Contract Documents.
- B. Plans and specifications have been formulated in an attempt to satisfy the conditions for any system proposed. However, a vendor may find that some changes or additional conduit and wiring from that indicated may be required to accommodate particular equipment being proposed. Should this be the case, the vendor shall include in his bid price, all changes or additional requirements necessary for the system. After

award of contract, revised drawings must be submitted for approval indicating any changes prior to any changes being implemented.

### 3.2 INSTALLATION

- A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
- B. Install the work of this Section in strict accordance with the design documents and the manufacturer's recommended installation procedures as approved by the Owner and Engineer.
- C. Final connections and/or terminations for all 120 volt and higher power wiring indicated on the documents and in this division of the specifications shall be made by the electrical contractor unless otherwise noted on the documents. Final connections and/or terminations for all signal, data and low voltage control wiring indicated on the documents and in this division of the specifications (shielded cable, fiber optic cable and #14 AWG wiring) shall be made by the appropriate system or equipment vendor or integrator unless noted otherwise. Equipment supplied under other divisions of the specifications that require electrical connections under this division shall be provided as per the approved

End of Section

## **APPENDIX**

### **I. Geotechnical Report**

# **GEOTECHNICAL EXPLORATION**

## **FOR THE PROPOSED**

**Lost Corner Park  
Sandy Springs, Georgia  
Project No. 01-125030**

## **PREPARED FOR**

**McFarland-Dyer & Associates, Inc.  
4174 Silver Peak Parkway  
Suwanee, GA 30024**

## **BY**

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**January 7, 2013**

# **GEOTECHNICAL EXPLORATION**

## **PROJECT**

### **Project Information**

The City of Sandy Springs is planning a driveway and parking lot for Lost Corner Park. The parking lot is to be constructed with minimal environmental impact with pervious pavement.

### **Site Location**

The site is located at the southwest corner of the intersection of Brandon Mill Road and Riverside Drive in Sandy Springs, Fulton County, Georgia.

### **Topography**

The topography of the immediate site slopes down in two (2) directions. On the north, northwest side of the existing drive, the site slopes down from the northeast to the southwest from elevation 1012 to elevation 1004. On the south side of the existing drive, the site slopes down from the north to the southeast from elevation 1010 to 995.

## **INTRODUCTION**

### **Purpose**

The purpose of this exploration was to evaluate the soil and groundwater conditions at the site and to provide recommendations for the proposed parking lot as well as to provide criteria for the Architects and Design Engineers to use in preparing the pavement design.

### **Scope**

The scope of the exploration and analysis included research of the available Fulton County Soil Survey and the Geologic Map of Georgia, a reconnaissance of the immediate site, the subsurface exploration, field testing, and an engineering analysis and evaluation of the subsurface materials.

The scope of services did not include any environmental assessment for the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below or around this site. Any statement in this report or on the boring logs regarding odors, colors or unusual or suspicious items or conditions is strictly for the information of the client.

### **Authorization**

This report presents the results of a geotechnical exploration for the proposed Lost Corner Park, conducted for McFarland-Dyer & Associates, Inc. The work for this project was performed in accordance with our Proposal No. P-12125 dated June 21, 2012. Authorization to perform this exploration and analysis was in the form of email correspondence.

## **General**

The general subsurface conditions used in the analysis were based upon interpolation of the subsurface data between the borings. There is a possibility that varying conditions may be encountered between boring locations. If deviations from the noted subsurface conditions are encountered during construction, they should be brought to the attention of the Geotechnical Engineer.

The recommendations submitted for the proposed parking lot are based on the available soil information and the preliminary design details. Any revision in the plans for the proposed parking lot from those described in this report should be brought to the attention of the Geotechnical Engineer to determine if changes are required.

The Geotechnical Engineer warrants that the findings, recommendations, specifications, or professional advice contained herein, have been presented after being prepared in accordance with generally accepted professional engineering practice in the fields of foundation engineering, soil mechanics and engineering geology. No other warranties are implied or expressed.

After the plans and specifications are complete, it is recommended that the Geotechnical Engineer be provided the opportunity to review the final design and specifications, in order to verify that the earthwork and foundation recommendations are properly interpreted and implemented.

This report has been prepared for the exclusive use of McFarland-Dyer & Associates, Inc. for the specific application to the Lost Corner Park project.

## **RESEARCH**

### **General Area Geology**

Sandy Springs, Georgia is located in the Piedmont Physiographical Province which covers a broad strip extending from central Alabama across Georgia, the Carolinas and Virginia, and tapering out to an end in the vicinity of Baltimore and Philadelphia. Crystalline rocks that were formed under tremendous heat and pressure underlie the entire region. The oldest rocks consist of gneisses and schists that were formed by the metamorphism of ancient sediments and igneous rock in the Pre-Cambrian Era. These rocks have been intruded by large quantities of igneous rocks. The intrusive are of two classes, distinguished by structure and rock type. The older intrusive are massive in structure and few extend above ground level (except Stone Mountain). The younger intrusions are in the form of narrow dikes and sills of varied composition. Some are granitic in nature and include many varieties of granite and granite pegmatite. Others are basic or trap rock. These include diabase, amphibolite and their altered forms. The region is cut by many faults; however, the faults are classified as ancient and have been inactive during recent times.

A typical soil profile in the Piedmont Region consists of three zones. The upper zone is crust, three to ten feet in thickness, made up of deep red silty clay or clayey silt soils. These soils are generally quite stiff. The intermediate zone, which is comparatively softer than the overlying crust, consists of micaceous sandy silts or silty sand soils. Unlike the upper zone that has been subject to severe weathering and leaching, the soils in the intermediate zone still retain the remnants of structures from their parent rock as seen in the strong banding of these soils. This is characteristic of residual soils, formed by the in-situ weathering of the parent bedrock. The third zone is that area of partially weathered rock just above sound bedrock. Soils in this zone consist of gravelly micaceous silts to silty sands and may be seen in alternating hard and soft layer.

Natural processes, man-made processes or a combination of both may alter this profile. Surface water movement or excavation, thus removing part or all of the upper components, often erodes landforms. Likewise, fill placement or alluvial deposition can add strata that would not be typical of in-situ weathering of the parent material.

### **Soil Series**

The following map was reviewed.

The Soil Survey of Fulton County, Georgia. U.S. Department of  
Agriculture, Natural Resources Conservation Service. 2008

Cecil, Cartecay-Toccoa Complex, and Ashlar-Rion Complex soil series are mapped on the subject site.

Cecil series consist of very deep, well drained moderately permeable soils on ridges and side slopes of the Piedmont. They are deep to saprolite and very deep to bedrock. They are formed in residuum weathered from felsic, igneous and high-grade metamorphic rocks.

Cartecay series consist of somewhat poorly drained, moderately to rapidly permeable soils that form in thick loamy alluvial sediments of the Piedmont.

Toccoa series consist of moderately well drained to well drained soils in flood plains and natural levees of the Piedmont. They are loamy and sandy alluvium formed from igneous and metamorphic rocks.

Ashlar series are moderately deep and excessively drained, moderately rapid permeable soils formed in the weathered products of granite and gneiss of the Piedmont.

Rion series are very deep, well drained, moderately permeable soils that formed in material mostly weathered from acid crystalline rocks of the Piedmont.

## **FIELD EXPLORATION**

### **Scope**

The field exploration to evaluate the engineering characteristics of the subsurface materials included a reconnaissance of the project site, drilling the test borings, performing dynamic cone penetrometer tests, and performing percolation tests. The depth to groundwater was recorded in each test boring during drilling.

Eight (8) test borings were drilled to depths ranging from four (4) feet to five and one-half (5 ½) feet below the existing ground surface. They were made in the locations determined by McFarland-Dyer & Associates, Inc. The field tests were located in the field by the AEI Engineers utilizing a Trimble GeoXT GPS. They are presumed to be accurate to within a few feet. The locations are shown on the accompanying Boring Location Plan.

### **Drilling and Sampling Procedures**

The hand auger borings were drilled using hand augering techniques. The soils were classified from the cuttings of the augered soil. The hand augering procedure included retracting the auger at approximately six (6) inch intervals to remove the material retained in the auger. All of the samples recovered were identified and evaluated by the Geotechnical Engineer.

### **Field Tests and Measurements**

**Cone Penetrometer Tests** - During the hand augering procedure, cone penetrometer tests were performed at pre-determined intervals to obtain the cone penetrometer resistance of the soil. The cone penetrometer value is defined as the number of blows of a fifteen (15) pound hammer, falling twenty (20) inches, required to advance the cone point one and three-quarters (1 ¾) inches into the soil. The cone is lowered to the bottom of the previously cleaned drill hole and advanced by blows from the hammer. The number of blows is recorded to drive the cone one and three-quarters (1 ¾) inches after it has been seated two (2) inches into the soil. The results of the cone penetrometer test are shown on the Boring Logs and indicate the relative compaction of the fill materials.

**Water Level Measurements** - Water level measurements were taken during the test boring operations. They are noted on the test boring logs presented in the Appendix.

**Ground Surface Elevations** - The elevation of the ground surface shown on each test boring log was estimated by interpolation from a two (2) foot interval topographic map furnished by McFarland-Dyer & Associates, Inc. and is presumably accurate to within ± one (1) foot.

**Percolation Tests** - During the soil boring procedure, two (2) percolation tests were performed using the Modified Taft Engineering Center Method. This method included boring holes with vertical sides and a minimum width of four (4) inches. The vertical sides were scratched to provide a natural soil interface into which the water may percolate. Two (2) inches of gravel was added to the bottom and loose materials were removed from the test holes. The test holes were then filled with water and allowed to stand until the soil was saturated. After the soaking period, water depths were adjusted to six (6) inches in depth above the gravel.

Repeated measurements over regular time intervals were then made from a fixed point at the ground surface to the water surface level. Water was added to restore the six-inch depth when the water fell to less than two (2) inches above the gravel. Successive measurements continued until a constant rate of percolation was demonstrated by the water surface dropping the same distance per time interval. The measurements included a minimum of two (2) consecutive similar readings. The percolation rate was expressed as the time in minutes required for the water column to drop one (1) inch at the constant rate.

## **SUBSURFACE CONDITIONS**

### **General**

The types of subsurface materials encountered in the test borings have been visually classified. They are described on the boring logs. The results of the field tests and water level observations are presented on the boring logs.

### **Soil Conditions**

Topsoil – Approximately four (4) inches of topsoil was encountered in all of the test borings.

Residual Soil – Residual soils consist of brownish red clayey silt, brownish red micaceous silt, brown clayey silt, light red with white silty sand, reddish brown sandy silt, brown silty sand, and yellowish brown with black clayey silt. Dynamic cone penetrometer results measured in the clayey silts, micaceous silts, and sandy silts ranged from five (5) to greater than twenty (20+) indicating soils of firm, stiff, very stiff and hard consistency. The soils encountered in the test borings are generally consistent with the Soil Survey map. Percolation rates of twenty-five (25) and forty-five (45) minutes per inch were measured at depths of sixty-six (66) and forty-eight (48) inches, respectively.

Possible Alluvial Soils - Silty sand soils were encountered in the top thirty (30) inches of Boring B-6. Boring B-6 is located in the low lying area near the proposed drive entrance that receives drainage flow via a 24" RCP culvert under Brandon Mill Road. Dynamic cone penetrometer results measured in the silty sands were two (2), four (4), and eight (8) indicating soils of very loose and loose relative density.

### **Groundwater Conditions**

Groundwater was not encountered in any of the borings.

### **Refusal Materials**

Refusal materials were not encountered in any of the borings.

## **EARTHWORK DISCUSSION AND RECOMMENDATIONS**

### **Discussion - Earthwork**

Possible Alluvial Soils – Soft surface soils were encountered in Boring B-6 to a depth of approximately twenty-four (24) to thirty (30) inches below the existing ground surface. Remedial measures, such as undercutting and/or stabilizing, may be necessary.

Unsuitable Fill Material - The topsoil contains organic material and is unsuitable for use as structural fill.

Suitable Fill Material – The residual soils are suitable for use as structural fill. Depending upon the amount of rainfall in months preceding construction, it may be necessary to dry the soils prior to their being compacted.

Refusal Materials - Refusal materials were not encountered in any of the borings; therefore rock excavation is not anticipated for shallow grading operations.

Groundwater – Groundwater was not encountered in any of the borings; therefore dewatering is not anticipated for shallow foundation excavations.

Retaining Walls - The boring locations were limited to the parking lot area with one (1) boring located over a proposed storm pipe. Exploration of the subsurface materials in the area of retaining walls was not included in the scope of work. Varying subsurface conditions may be encountered in those areas.

### **Recommendations**

1. The topsoil should be stripped from all structural areas and be stockpiled for later use in landscape areas or be discarded.
2. The surface of the site should be proofcompacted to detect and compact any localized soft areas at the surface of the site. Remedial measures, such as undercutting and/or stabilizing, may be necessary, particularly in the low lying area near the proposed drive entrance in the location of Boring B-6.
3. Structural fill materials should be free of organic matter and be compacted to a minimum of 95 percent of the maximum dry density within  $\pm 3\%$  of the optimum moisture content as determined by Standard Proctor ASTM D 698.
4. Fill slopes should be compacted in horizontal lifts not to exceed six (6) inches in compacted thickness. Where there are existing slopes, benches should be excavated into the existing slope as shown on the diagram in the Appendix to “key” the new fill into the existing slope.
5. Fill should be placed in six (6) inch lifts (compacted thickness) in mass fill areas and as needed to obtain proper compaction in utility trenches and behind walls.

6. A representative of the Geotechnical Engineer should monitor filling operations. A sufficient number of density tests should be taken to verify that the specified compaction is obtained.
7. A subgrade percolation rate of forty-five (45) minutes per inch is recommended for design of the pervious pavement.

### **GENERAL COMMENTS**

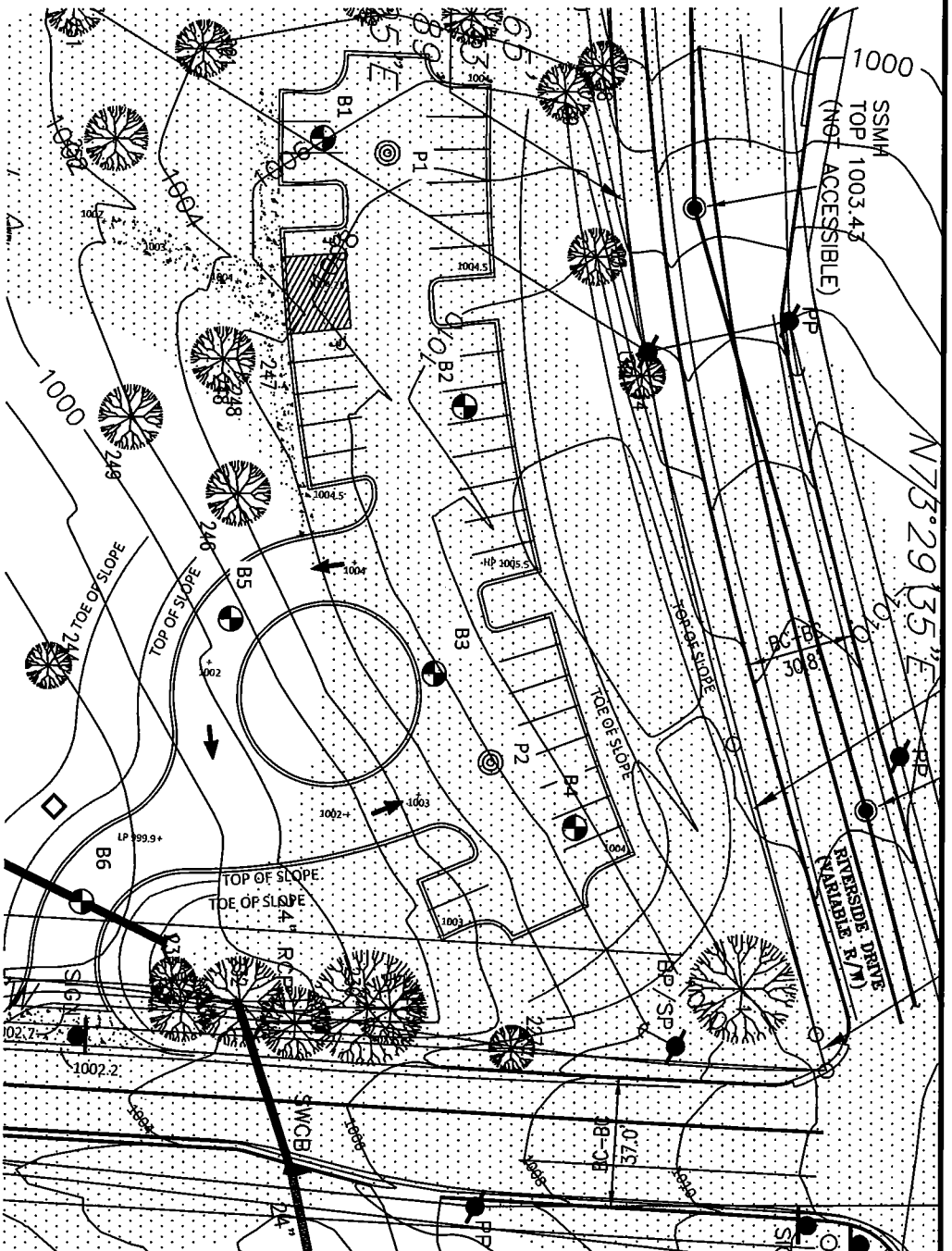
When the plans and specifications are complete, or if significant changes are made in the character or location of the proposed structure, a consultation should be arranged to review the changes with respect to the prevailing soil conditions. At that time it may be necessary to submit supplementary recommendations.

It is recommended that the services of Ahlberg Engineering, Inc. be engaged to evaluate the undercutting and stabilization of the low lying area near the proposed drive entrance and the compaction of fill materials.

Respectfully submitted,  
AHLBERG ENGINEERING, INC.

Ryan D. Woodcum, PE  
Project Engineer

James E. Ahlberg, PE  
Senior Engineer



BORING LOCATION PLAN

PROJECT NAME  
LOST CORNER PARK  
SANDY SPRINGS, GEORGIA

LEGEND



Boring Location

AHLBERG ENGINEERING, INC.

PROJECT NO.  
01-125030

DATE  
12/28/12

# Ahlberg Engineering Inc.

## HAND AUGER BORING LOG

Boring: B-1

Project Name: Lost Corner Park

Date of Boring: 12/28/12

Sandy Springs, Georgia

Project No.: 01-125030

1006±

DESCRIPTION	DEPTH	ELEV.	SAMPLE	P	M <sub>c</sub>	REMARKS
Brownish red clayey SILT with some mica			S-1	9		Topsoil = 4"
	1		S-2	20+		
	2		S-3	20+		
Brownish red micaceous SILT with some sand	3		S-4	20+		
	4		S-5	20+		
Boring terminated at 4 feet No water table encountered during drilling	5					
	6					
	7					
	8					
	9					
	10					
	11					

P - Cone Penetrometer Value

M<sub>c</sub> - Moisture Content, % ( ASTM D 2216 )



= Water Level Measured in Bore Hole

# Ahlberg Engineering Inc.

## HAND AUGER BORING LOG

Boring: B-2

Project Name: Lost Corner Park  
Sandy Springs, Georgia

Date of Boring: 12/28/12

Project No.: 01-125030

1010±

DESCRIPTION	DEPTH	ELEV.	SAMPLE	P	M <sub>c</sub>	REMARKS
Brownish red clayey SILT with some mica			S-1	6		Topsoil = 4"
	1		S-2	7		
	2		S-3	20		
	3		S-4	20+		
	4		S-5	20+		
Boring terminated at 4 feet No water table encountered during drilling	5					
	6					
	7					
	8					
	9					
	10					
	11					

P - Cone Penetrometer Value

M<sub>c</sub> - Moisture Content, % ( ASTM D 2216 )



- Water Level Measured in Bore Hole

# Ahlberg Engineering Inc.

## HAND AUGER BORING LOG

Boring: B-3

Project Name: Lost Corner Park  
Sandy Springs, Georgia

Date of Boring: 12/28/12

Project No.: 01-125030

1008±

DESCRIPTION	DEPTH	ELEV.	SAMPLE	P	M <sub>c</sub>	REMARKS
Brownish red clayey SILT with some mica			S-1	7		Topsoil = 4"
	1		S-2	7		
	2		S-3	7		
	3		S-4	28		
Brownish red micaceous SILT with some sand	4		S-5	20+		
Boring terminated at 4 feet No water table encountered during drilling	5					
	6					
	7					
	8					
	9					
	10					
	11					

P - Cone Penetrometer Value

M<sub>c</sub> - Moisture Content, % ( ASTM D 2216 )



- Water Level Measured in Bore Hole

# Ahlberg Engineering Inc.

## HAND AUGER BORING LOG

Boring: B-4

Project Name: Lost Corner Park  
Sandy Springs, Georgia

Date of Boring: 12/28/12

Project No.: 01-125030

1009±

DESCRIPTION	DEPTH	ELEV.	SAMPLE	P	M <sub>c</sub>	REMARKS
Brown clayey SILT			S-1	7		Topsoil = 4"
Dark brownish red clayey SILT with some mica	1		S-2	9		
	2		S-3	15		
Brownish red clayey SILT with some mica	3		S-4	20+		
Light brownish red with white sandy SILT with some mica	4		S-5	20+		
Boring terminated at 4 feet No water table encountered during drilling	5					
	6					
	7					
	8					
	9					
	10					
	11					

P - Cone Penetrometer Value

M<sub>c</sub> - Moisture Content, % ( ASTM D 2216 )



= Water Level Measured in Bore Hole

# Ahlberg Engineering Inc.

## HAND AUGER BORING LOG

Boring: B-5

Project Name: Lost Corner Park  
Sandy Springs, Georgia

Date of Boring: 12/28/12

Project No.: 01-125030

1001±

DESCRIPTION	DEPTH	ELEV.	SAMPLE	P	M <sub>c</sub>	REMARKS
Reddish brown sandy SILT with some mica			S-1	6		Topsoil = 4"
	1		S-2	5		
Brownish red clayey SILT with some mica			S-3	9		
	2					
	3		S-4	20		
	4		S-5	20+		
Boring terminated at 4 feet No water table encountered during drilling	5					
	6					
	7					
	8					
	9					
	10					
	11					

P - Cone Penetrometer Value

M<sub>c</sub> - Moisture Content, % ( ASTM D 2216 )



- Water Level Measured in Bore Hole

# Ahlberg Engineering Inc.

## HAND AUGER BORING LOG

Boring: B-6

Project Name: Lost Corner Park  
Sandy Springs, Georgia

Date of Boring: 12/28/12

Project No.: 01-125030

996±

DESCRIPTION	DEPTH	ELEV.	SAMPLE	P	M <sub>C</sub>	REMARKS
Brown silty SAND			S-1	2		Topsoil = 4"
	1		S-2	4		
	2		S-3	8		
Yellowish brown with black clayey SILT with some gravel	3		S-4	15		
	4		S-5	20+		
Boring terminated at 4 feet No water table encountered during drilling	5					
	6					
	7					
	8					
	9					
	10					
	11					

P - Cone Penetrometer Value

M<sub>C</sub> - Moisture Content, % ( ASTM D 2216 )



- Water Level Measured in Bore Hole

# Ahlberg Engineering Inc.

## HAND AUGER BORING LOG

Boring: P-1

Project Name: Lost Corner Park  
Sandy Springs, Georgia

Date of Boring: 12/28/12

Project No.: 01-125030

1007±

DESCRIPTION	DEPTH	ELEV.	SAMPLE	P	M <sub>c</sub>	REMARKS
Brownish red clayey SILT with some mica	1					Topsoil = 4"
	2					
	3					
Light brownish red micaceous SILT with some sand	4					
Boring terminated at 4 feet No water table encountered during drilling	5					Percolation Rate of 45 minutes per inch at a depth of 48"
	6					
	7					
	8					
	9					
	10					
	11					

P - Cone Penetrometer Value

M<sub>c</sub> - Moisture Content, % ( ASTM D 2216 )



- Water Level Measured in Bore Hole

# Ahlberg Engineering Inc.

## HAND AUGER BORING LOG

Boring: P-2

Project Name: Lost Corner Park

Date of Boring: 12/28/12

Sandy Springs, Georgia

Project No.: 01-125030

1007.5±

DESCRIPTION	DEPTH	ELEV.	SAMPLE	P	M <sub>c</sub>	REMARKS
Brownish red clayey SILT with some mica	1					Topsoil = 4"
	2					
	3					
Light brownish red with white sandy SILT with some mica	4					
	5					
Boring terminated at 5 feet 6 inches No water table encountered during drilling	6					Percolation Rate of 25 minutes per inch at a depth of 66"
	7					
	8					
	9					
	10					
	11					

P - Cone Penetrometer Value

M<sub>c</sub> - Moisture Content, % ( ASTM D 2216 )



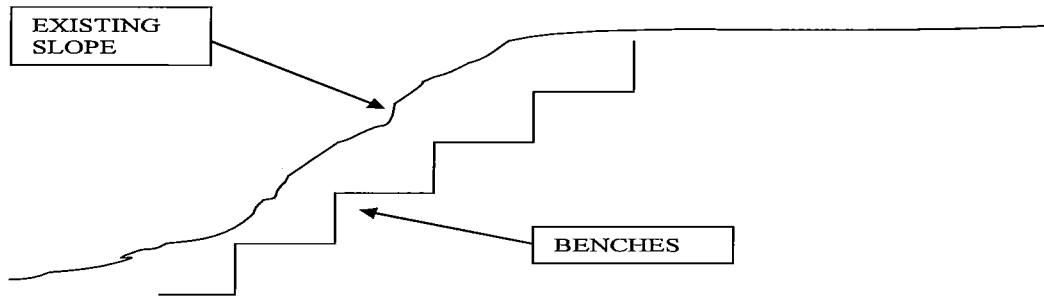
- Water Level Measured in Bore Hole

Fill slopes should be compacted in horizontal lifts not to exceed six (6) inches in compacted thickness. Benches should be excavated into the existing slope as shown on the following diagram to “key” the new fill into the existing slope.

*Bench width*                      Approximately four (4) to six (6) feet.

*Bench height*                      Equal to bench width.

*Sequencing*                      Cut lowest bench and bring the fill material up to the top of that bench prior to cutting the next bench. Continue the process until the top of slope is achieved.



<b>SLOPE BENCHING</b>		<b>AHLBERG ENGINEERING, INC.</b>	
<b>PROJECT NAME</b>  Lost Corner Park Sandy Springs, Fulton County, Georgia	<b>LEGEND</b>  Not to scale	<b>PROJECT NO.</b> 01-125030	
		<b>DATE</b> 12/28/12	

**EXHIBIT M  
TO CONTRACT AGREEMENT**

**NOTICE TO CONTRACTORS  
COMPLIANCE WITH ELECTRICAL SAFETY PROVISIONS  
(Bidder to sign and return)**

I hereby certify that I am a principal and duly authorized representative of \_\_\_\_\_, (“Contractor”), whose address is \_\_\_\_\_, \_\_\_\_\_, and I further certify that:

- (1) The provisions of Section 46-3-30 of the Official Code of Georgia Annotated, relating to the “High Voltage Safety Act” will be complied with in full; and
- (2) The provisions of OSHA 29CFR1910.333(c) relating to work near high voltage power lines; and
- (3) The provisions of Part 4 of the National Electrical Safety Code.
- (3) The Contractor shall be required to ensure that each subcontractor hired is in compliance with the provisions listed above.

**CONTRACTOR:**

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Title: \_\_\_\_\_

## **APPENDICES**

1. AFFIDAVITS
  - Affidavit Verifying Status for City Public Benefit Application
  - Contractor Affidavit Under O.C.G.A. §13-10-91(b)(1)
2. CORPORATE CERTIFICATE
3. BONDS
4. LIST OF SUBCONTRACTORS
5. CERTIFICATE OF QUALIFICATION GEORGIA DEPARTMENT OF TRANSPORTATION

**Affidavit Verifying Status  
for City Public Benefit Application  
(Bidder to sign and return)**

By executing this affidavit under oath, as an applicant for a City of Sandy Springs, Georgia Business License or Occupation Tax Certificate, Alcohol License, Taxi Permit, execution of contract or other public benefit as referenced in O.C.G.A. Section 50-36-1, I am stating the following with respect to my application for a City of Sandy Springs license/permit and/or contract for

[Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity]

1) \_\_\_\_\_ I am a United States citizen

**OR**

2) \_\_\_\_\_ I am a legal permanent resident 18 years of age or older or I am an otherwise qualified alien or non-immigrant under the Federal Immigration and Nationality Act 18 years of age or older and lawfully present in the United States.\*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

\*Alien \_\_\_\_\_ Registration \_\_\_\_\_ number \_\_\_\_\_ for \_\_\_\_\_ non-citizens

**\*\*PLEASE INCLUDE A COPY OF YOUR PERMANENT RESIDENT CARD, EMPLOYMENT AUTHORIZATION, GREEN CARD, OR PASSPORT WITH A COPY OF YOUR DRIVER'S LICENSE IF YOU ARE A LEGAL PERMANENT RESIDENT (#2).**

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_.

Notary Public: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

\*Note: O.C.G.A. § 50-36-1(e)(2) requires that aliens under the federal Immigration and Nationality Act, Title 8 U.S.C., as amended, provide their alien registration number. Because legal permanent residents are included in the federal definition of "alien", legal permanent residents must also provide their alien registration number. Qualified aliens that do not have an alien registration number may supply another identifying number below:

\_\_\_\_\_

**Contractor Affidavit under O.C.G.A. § 13-10-91(b)(1)**  
**(Bidder to sign and return)**

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of the City of Sandy Springs has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

\_\_\_\_\_  
Federal Work Authorization User Identification Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Name of Project

\_\_\_\_\_  
Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_ in \_\_\_\_\_ (city), \_\_\_\_\_ (state).

\_\_\_\_\_  
Signature of Authorized Officer or Agent

\_\_\_\_\_  
Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME

ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

## **CORPORATE CERTIFICATE**

I, \_\_\_\_\_, certify that I am the Secretary of the Corporation named as Contractor in the foregoing bid; that \_\_\_\_\_ who signed said bid in behalf of the Contractor, was then (title) \_\_\_\_\_ of said Corporation; that said bid was duly signed for and in behalf of said Corporation by authority of its Board of Directors, and is within the scope of its corporate powers; that said Corporation is organized under the laws of the State of \_\_\_\_ Georgia \_\_\_\_\_.

This \_\_\_\_\_ day of \_\_\_\_\_, 2012.

(Seal)

\_\_\_\_\_  
(Signature)

**BID BOND**  
**(BID BOND TO BE RETURNED WITH BID)**

KNOW ALL MEN BY THESE PRESENTS, THAT \_\_\_\_\_

\_\_\_\_\_  
(Name of Contractor) \_\_\_\_\_

(Address of Contractor) at

\_\_\_\_\_  
(Corporation, Partnership and or Individual) hereinafter called Principal, and \_\_\_\_\_

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

A corporation of the State of \_\_\_\_\_, and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

City of Sandy Springs Georgia  
7840 Roswell Rd., Bldg. 500, Sandy Springs, Georgia 30350

herein after referred to as Obligee, in the penal sum  
of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful money  
of the United States, for the payment of which sum well and truly to be made, we bind  
ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by  
these presents.

WHEREAS, the Principal is about to submit, or has submitted, to the City of Sandy Springs,  
Georgia, a proposal for furnishing materials, labor and equipment for:

**Lost Corners Preserve Parking Improvements**

WHEREAS, the Principal desires to file this Bond in accordance with law in lieu of a certified  
Bidder's check otherwise required to accompany this Proposal.

NOW, THEREFORE, the conditions of this obligation are such that if the bid is accepted, the  
Principal shall within ten days after receipt of notification of the acceptance execute a Contract  
in accordance with the Bid and upon the terms, conditions, and prices set forth in the form and  
manner required by the City of Sandy Springs, Georgia, and execute a sufficient and satisfactory  
Performance Bond and Payment Bond payable to the City of Sandy Springs, Georgia, each in an  
amount of 100% of the total Contract Price, in form and with security satisfactory to said the City  
of Sandy Springs, Georgia, and otherwise, to be and remain in full force and virtue in law; and the  
Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements  
within the time specified above, immediately pay to the City of Sandy Springs, Georgia, upon  
demand, the amount hereof in good and lawful money of the United States of America, not as a

penalty, but as liquidated damages.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant, to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. § 36-91-1, et. seq., and is intended to be and shall be constructed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 20\_\_\_\_

ATTEST:

\_\_\_\_\_  
(Principal Secretary)

(SEAL)

\_\_\_\_\_  
(Witness to Principal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Surety)

ATTEST

BY: \_\_\_\_\_  
(Attorney-in-Fact) and Resident Agent

\_\_\_\_\_  
(Attorney-in-Fact)

(Seal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Witness as to Surety)

\_\_\_\_\_  
(Address)

\_\_\_\_\_

\_\_\_\_\_  
(Principal)

BY: \_\_\_\_\_

\_\_\_\_\_  
(Address)

## PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: THAT

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_  
(Corporation, Partnership or Individual)

Hereinafter called Principal, and

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

A Corporation of the State of \_\_\_\_\_ and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

The City of Sandy Springs, Georgia  
7840 Roswell Rd., Bldg.-500, Sandy Springs, Ga. 30350

hereinafter referred to as Obligee; are held firmly bound unto said Obligee and all persons doing work or furnishing skill, tools, machinery, supplies, or material under or for the purpose of the Contract hereinafter referred to, in the penal sum of:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_ ) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such, as whereas the Principal entered into a certain contract, hereto attached, with the Obligee, dated \_\_\_\_\_ for:

### Lost Corners Preserve Parking Improvements

NOW THEREFORE, the conditions of this obligation are such that if the above bound Principal shall well, truly, fully and faithfully perform said contract according to its terms, covenants, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the obligee, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreement of any and all duly authorized modifications of said contract that may hereafter be made, then his obligation shall be void, otherwise to remain in full force and effect.

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or

to the Work to be performed thereunder shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed hereunder.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including but not limited to, O.C.G.A. § 36-91-1 et. seq., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 20\_\_\_\_

ATTEST:

\_\_\_\_\_  
(Principal Secretary)

\_\_\_\_\_  
(Principal)

(SEAL)

BY: \_\_\_\_\_

\_\_\_\_\_  
(Witness to Principal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_

(Surety)

ATTEST BY:

\_\_\_\_\_  
Attorney-in-Fact) and Resident Agent

\_\_\_\_\_  
(Attorney-in-Fact)

(Seal)

(Address)

\_\_\_\_\_

\_\_\_\_\_  
(Witness as to Surety)

\_\_\_\_\_  
(Address)

## PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: THAT \_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_  
(Corporation, Partnership or Individual)

Hereinafter called Principal, and

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

a Corporation of the State of \_\_\_\_\_ and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

The City of Sandy Springs Georgia  
7840 Roswell Rd., Bldg.-500, Sandy Springs, Georgia 30350

hereinafter referred to as Obligee; for the use and protection of all subcontractors and all persons supplying labor, services, skill, tools, machinery, materials and/or equipment in the prosecution of the work provided for in the contract herein after referred to in the full and just sum of \_\_\_\_\_ Dollars

(\$\_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made, the Principal and Surety bind themselves, their, and each of their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such, as whereas the Principal entered into a certain contract hereto attached, with the Obligee, dated \_\_\_\_\_ for:

### **Lost Corners Preserve Parking Improvements**

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall well, truly, and faithfully perform said Contract in accordance to its terms, covenants, and conditions, and shall promptly pay all persons furnishing labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

All persons who have furnished labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract shall have a direct right of action on this Bond, provided payment has not been made in full within ninety (90) days after the last day on which labor was performed, materials, services, skill, tools, machinery, and equipment furnished or the subcontract completed.

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or

to the Work to be performed there under shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed there under.

PROVIDED, HOWEVER, that no suit or action shall be commenced hereunder by any person furnishing labor, materials, services, skill, tools, machinery, and/or equipment having a direct contractual relationship with a subcontractor, but no contractual relationship express or implied with the Principal:

Unless such person shall have given notice to the Principal within One Hundred and Twenty (120) days after such person did, or performed the last of the work or labor, or furnished the last of the materials, services, skill, tools, machinery and/or equipment for which claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials, services, skill, tools, machinery and/or equipment were furnished, or for whom the work or labor was done or performed. Such a notice shall be served by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Principal, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State in which the aforesaid project is located, save that such service need not be made by a public officer, and a copy of such notice shall be delivered to the Obligee, to the person and at the address provided for in the Contract, within five (5) days of the mailing of the notice to the Principal.

PROVIDED, FURTHER, that any suit under this bond must be instituted before the expiration of one (1) year after the acceptance of the public works covered by the Contract by the proper authorities.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. § 36-91-1, et. seq., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 20\_\_\_\_

ATTEST:

\_\_\_\_\_  
(Principal Secretary)

(SEAL)

\_\_\_\_\_  
(Witness to Principal)

\_\_\_\_\_  
(Address)

ATTEST

\_\_\_\_\_  
(Principal)

BY: \_\_\_\_\_

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Surety)

BY: \_\_\_\_\_

(Attorney-in-Fact) and Resident Agent

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(Attorney-in-Fact)

(Seal)

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(Address)

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(Witness as to Surety)

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(Address)

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## MAINTENANCE BOND

CITY OF SANDY SPRINGS, GEORGIA

PROJECT NO: \_\_\_\_\_ FULTON COUNTY, GEORGIA

BOND NO: \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS

That we, \_\_\_\_\_ as Principal, and  
\_\_\_\_\_ as Surety, are held and firmly bound unto the  
CITY OF SANDY SPRINGS, GEORGIA, as Obligee in the sum of 1/3 of the contract bid for  
the payment of which said Principal and Surety bind themselves, their heirs, administrators,  
executors, successors and assigns jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into an agreement with the City of Sandy Springs for

### **Lost Corners Preserve Parking Improvements**

and said work has now been completed and the Obligee desires a maintenance bond guarantee  
said streets and improvements for a period of one (1) year beginning \_\_\_\_\_ and  
ending \_\_\_\_\_.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the  
Principal shall fully indemnify and save harmless the City of Sandy Springs from any and all  
loss, costs, expenses or damages, for any repairs or replacements required because of defective  
workmanship or materials in said construction, then this obligation shall be null and void;  
otherwise to be and remain in full force and effect as to any such claim arising within one (1)  
year from the completion of said construction as set forth in said agreement.

Signed, sealed and dated this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_

Witness:

\_\_\_\_\_  
(Principal)

\_\_\_\_\_  
(Name of Surety. Company)

\_\_\_\_\_  
(Attorney-in-fact)

**LIST OF SUBCONTRACTORS**  
**(Bidder to complete and return)**

I do \_\_\_\_\_, do not \_\_\_\_\_, propose to subcontract some of the work on this project. I propose to subcontract work to the following subcontractors:

Company Name: \_\_\_\_\_